July 24, 2002

Mr. Mark Ashley
Golden Casting Corporation
1616 Tenth Street
Columbus, IN 47201

Re: 005-15288-00006
Significant Source Modification to:
Part 70 permit No.: T005-6001-00006

Dear Mr. Ashley:

Golden Casting Corporation was issued Part 70 operating permit T005-6001-00006 on April 12, 2002 for a gray iron foundry. An application to modify the source was received on February 5, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) CB-25 cold box core machine identified as EU-217 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-2, with emissions exhausting through stack SB-2. Core sand and resin will be supplied by the existing mixer identified as the B&P Mixer System I & II.

(b) One (1) CB-25 cold box core machine identified as EU-218 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-3, with emissions exhausting through stack SB-3. Core sand and resin will be supplied by the existing mixer identified as the Palmer Continuous Mixer.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect

unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Nisha Sizemore or extension 2-8356, or dial (317) 232-8356.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
TSD, Appendix A
nls
cc: File - Bartholomew County
Bartholomew County Health Department
Air Compliance Section Inspector - Richard Sekula
Compliance Data Section - Karen Nowak
Administrative and Development - Sara Cloe
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Golden Casting Corporation
1616 Tenth Street
Columbus, Indiana 47201

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T005-6001-00006	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: April 12, 2002 Expiration Date: April 12, 2007

First Significant Permit Modification No.: 005-15520-00006 for the First Significant Source Modification No.: 005-15288-00006	Pages Affected: 9, 31- 35, 38- 41, 43, 44, 47-49, and 61-64
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates stationary gray iron foundry.

Responsible Official:	President
Source Address:	1616 Tenth Street, Columbus, Indiana 47201
Mailing Address:	1616 Tenth Street, Columbus, Indiana 47201
SIC Code:	3321
County Location:	Bartholomew County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major, under PSD Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) The scrap and charge handling process, constructed prior to 1968, identified as 103 with a maximum capacity of 22 tons of metal per hour with emissions uncontrolled.

(b) One (1) cupola, identified as 101, constructed prior to 1968 with a maximum capacity of 22 tons of metal per hour with emissions controlled by a baghouse, BH-3, and an afterburner, AB-1, exhausting through stack SC-1.

(c) Moldmaster pouring process, identified as 315, constructed in 1962 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by a baghouse, BH16, exhausting through stack SC-5.

(d) Moldmaster cooling process, identified as 316 and 317, constructed in 1964 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by two (2) baghouses, BH-12 and BH-13, exhausting through stacks SC7A and SC7B.

(e) Moldmaster casting shakeout process, identified as 318 and 320, constructed in 1964 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by one (1) baghouse, BH-1, exhausting through stack SC9.

(f) Moldmaster sand system and muller, identified as 311 and 313, constructed in 1962 with a maximum capacity of 105 tons of sand per hour with emissions controlled by one (1) rotoclone, RC-1, exhausting through stack SC-6.

(g) Stationmaster pouring process, identified as 342, constructed before 1977 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with

emissions uncontrolled and exhausting internally.

(h) Stationmaster cooling process, identified as 343, constructed before 1977 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with emissions uncontrolled and exhausting internally.

(i) Stationmaster casting shakeout process, identified as 344, constructed in 1994 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with emissions controlled by one (1) baghouse, BH-15, exhausting through stack SC-12.

(j) Stationmaster sand system and muller, identified as 341, constructed before 1977 with a maximum capacity of 40 tons of sand per hour with emissions controlled by one (1) baghouse, BH-15, exhausting through stack SC-12.

(k) Slinger pouring process, identified as 374, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(l) Slinger cooling process, identified as 375, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(m) Slinger casting knockout process, identified as 376, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(n) Slinger sand system and muller, identified as 371, 372, and 373, constructed before 1968 with a maximum capacity of 8 tons of sand per hour with emissions controlled by one (1) rotoclone, RC-2, exhausting through stack SC-24.

(o) Shotblasting operations consisting of the following:

(1) BMD Blast, identified as 450, to be constructed in 2001, with a maximum capacity of 30 tons of metal per hour with emissions controlled by baghouse BH-10, exhausting through stack SC-22.

(2) N. Tumble Blast, identified as 443-1, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-7, exhausting through stack SC-19A.

(3) M. Tumble Blast, identified as 443-2, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-8, exhausting through stack SC-19B.

(4) S. Tumble Blast, identified as 443-3, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-6, exhausting through stack SC-19C.

(5) 42 Blast, identified as 442, constructed before 1977 with a maximum capacity of 18 tons of metal per hour with emissions controlled by a baghouse, BH-14, exhausting through stack SC-18.

(6) North Pangborn Blast, identified as 444, constructed before 1968 with a maximum capacity of 7.5 tons of metal per hour with emissions controlled by a

baghouse, BH-11, exhausting through stack SC-20.

(p) Grinding operations consisting of the following:

(1) Head cleaning and stand grinders, identified as 447, constructed before 1977 with a maximum capacity of 14 tons of metal per hour total with emissions controlled by one (1) baghouse, BH-5, exhausting through stack SC-16.

(2) Two (2) Block grinders, identified as 441, constructed in 1986 with a maximum capacity of 16 tons of metal per hour total with emissions controlled by one (1) baghouse, BH-4, exhausting through stack SC-17.

(3) Swing grinder, identified as 446, constructed before 1977 with a maximum capacity of 15 tons of metal per hour with emissions controlled by one (1) baghouse, BH-4, exhausting through stack SC-17.

(q) Core making operations consisting of the following:

(1) Four (4) 4-103 Isocure core machines, identified as 201, constructed in 1976 with a maximum capacity of 6 tons of cores per hour total with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. These core machines are supplied by the B&P mixer.

(2) One (1) 4-101 Cold Box core machine, identified as 202, constructed in 1986 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. This core machine is supplied by the B&P mixer.

(3) One (1) 315 D Cold Box core machine, identified as 203, constructed in 1986 with a maximum capacity of 1 ton of cores per hour total with emissions controlled by a scrubber, SB-4, exhausting through stack SB-4. This core machine uses a manual mixer.

(4) Two (2) EB-2 Cold Box core machines, identified as 204, constructed in 1993 with a maximum capacity of 2 tons of cores per hour total with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. These core machines are supplied by the B&P mixer.

(5) One (1) 4-102 Isocure core machine, identified as 205, constructed prior to 1977 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-4, exhausting through stack SB-4. This core machine uses a manual mixer.

(6) One (1) 4-103 Isocure core machine, identified as 206, constructed prior to 1977 with a maximum capacity of 1.5 ton of cores per hour with emissions controlled by a scrubber, SB-3, exhausting through stack SB-3. This core machine is supplied by an auger mixer.

(7) One (1) Insta Draw Isocure core machine, identified as 207, constructed prior to 1977 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-5, exhausting through stack SB-5.

(8) One (1) Pepset core system, identified as 208, constructed prior to 1970 with a maximum capacity of 2 tons of cores per hour with emissions uncontrolled

exhausting through stack SU-14.

(9) One (1) Airset core system, identified as 209, constructed prior to 1977 with a maximum capacity of 2 tons of cores per hour with emissions uncontrolled exhausting through stack SU-15.

(10) One (1) Sutter core machine, identified as 210, constructed before 1977 with a maximum capacity of 1 tons of cores per hour with emissions uncontrolled exhausting internally.

(11) Three (3) Demler core machines, all three identified as 211, constructed before 1977 with a maximum capacity of 2 tons of cores per hour total with emissions uncontrolled exhausting internally.

(12) Three (3) Shalco core machines, identified as 213, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(13) One (1) core machine, identified as 214, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(14) Two (2) MC5 core machines, identified as 215, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(15) One (1) Shell core machine, identified as 216, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(16) Two (2) Isocure core machines and sand handling system, identified as 200, constructed in 1997 and 1998 with a maximum capacity of 12.3 tons of cores per hour with emissions controlled by an acid scrubber, SB-1, for VOC control and a cartridge filter for particulate control exhausting through stack SB-1.

(17) One (1) CB-25 cold box core machine identified as EU-217 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-2, with emissions exhausting through stack SB-2. Core sand and resin will be supplied by the existing mixer identified as the B&P Mixer System I & II.

(18) One (1) CB-25 cold box core machine identified as EU-218 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-3, with emissions exhausting through stack SB-3. Core sand and resin will be supplied by the existing mixer identified as the Palmer Continuous Mixer.

(19) One (1) core sand handling system, constructed in 1997 with a maximum capacity of 123 tons of sand per hour with particulate emissions controlled by a cartridge filter and exhausting through stack SB-1.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM , the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1.

When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V

Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, . IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015

Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect

such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance

of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy any records that must be kept under the conditions of this

permit;

(c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

(a) The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable. Pursuant to 326 IAC 6-4-5(c), compliance with this requirement shall be determined by observations made by a qualified representative of the commissioner of visible emissions crossing the property line of the source at or near ground level.

(b) Pursuant to 326 IAC 6-4-2(3), the Permittee shall not allow the ground level ambient air concentrations of fugitive dust to exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period. Pursuant to 326 IAC 6-4-5(b), ambient air concentrations shall be measured using the standard hi volume sampling and analysis techniques as specific by 40 CFR 50.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute, rule, or in this permit, all air pollution control equipment

listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit(s) vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment

and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Permittee may request the IDEM, OAQ to approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

C.14 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once per hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary

monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

(c) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the corrective actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.19 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period

starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period.

The report(s) do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] The scrap and charge handling process, constructed prior to 1968, identified as 103 with a maximum capacity of 22 tons of metal per hour with emissions uncontrolled.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the scrap and charge handling process shall not exceed 32.5 pounds per hour when operating at a process weight rate of 22 tons of charge materials per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.2 Particulate Matter (PM) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply to the scrap and charge handling process:

(a) The PM emissions shall not exceed 0.60 pounds per ton of metal charged to the cupola.

(b) The PM10 emissions shall not exceed 0.36 pounds per ton of metal charged to the cupola.

(c) The lead emissions shall not exceed 0.0023 pound per ton of metal charged to the cupola.

Therefore the requirements of 326 IAC 2-2 and 40 CFR 52.21 shall not apply.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) cupola, identified as 101, constructed prior to 1968 with a maximum capacity of 22 tons of metal per hour with emissions controlled by a baghouse, BH-3, and an afterburner, AB-1, exhausting through stack SC-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter Emissions [326 IAC 11-1]

Pursuant to 326 IAC 11-1-1 (Emission Limitations for Specific Types of Operations), the particulate matter emissions from the cupola shall not exceed 38.4 pounds per hour when operating at a process weight rate of 22 tons of metal per hour.

D.2.2 Prevention of Significant Deterioration [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply to the cupola melt furnace:

(a) The PM emissions shall not exceed 1.000 pounds per ton of metal.

(b) The PM10 emissions shall not exceed 0.899 pounds per ton of metal.

(c) The SO_2 emissions shall not exceed 19.93 pounds per ton of metal.

(d) The CO emissions shall not exceed 49.95 pounds per ton of metal.

(e) The NOx emissions shall not exceed 19.94 pounds per ton of metal.

(f) The VOC emissions shall not exceed 15.81 pounds per ton of metal.

(g) The lead emissions shall not exceed 0.260 pounds per ton of metal.

(h) The beryllium emissions shall not exceed 0.000195 pounds per ton of metal.

(i) The amount of metal melted in the cupola in order to produce castings using the cores produced by core machines EU217 and EU218 shall not exceed 4,000 tons per 12 consecutive month period.

(j) The maximum melt rate of the cupola (101) shall not exceed 22 tons of metal per hour. Any change or modification to this unit that would increase the capacity of the unit will need prior approval from IDEM.

Therefore the requirements of 326 IAC 2-2 and 40 CFR 52.21 shall not apply.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the cupola, cupola charge door, cupola cap, baghouse, and afterburner.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

(a) Within 180 days after issuance of this permit, the Permittee shall perform PM testing on the cupola (101) using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.2.1 and D.2.2. These tests shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) Within 60 days after the two core machines EU217 and EU218 achieve maximum capacity but no later than 180 days after startup of the two core machines EU217 and EU218, the Permittee shall perform PM10, CO, lead, and beryllium testing on the cupola (101) using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.2.2. These tests shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.2.5 Control Equipment [326 IAC 9-1]

(a) In order to comply with the requirements of Conditions D.2.1, the baghouse BH-3 for PM and PM10 control shall be in operation at all times when the cupola is in operation and during startup of the cupola.

(b) Pursuant to 326 IAC 9-1 (CO Emissions) and in order to comply with the requirements of Condition D.2.2, the afterburner AB-1 shall be in operation at all times when the cupola (101) is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the cupola (101) stack exhaust, the cupola charge door, and the cupola cap shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the cupola (101) at least once per shift when the cupola (101) is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 5.0 and 12.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the cupola process when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.2.9 Broken or Failed Bag Detection

In the event that bag failure has been observed.

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.2.10 Cupola Gas Stream Temperature

The Permittee shall continuously record the operating temperature of the cupola gas stream when the cupola is in operation. Whenever the temperature is below 1400 degrees Fahrenheit or a minimum temperature established during the latest OAQ approved stack test, the Permittee shall take reasonable response steps in according with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A temperature reading that is below the minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the temperature shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of the permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.11 Record Keeping Requirements

(a) In order to document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the cupola stack exhaust(s), cupola cap, and cupola charge door once per shift.

(b) In order to document compliance with condition D.2.7, the Permittee shall maintain records of the inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere.

(c) In order to document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8 and the dates the vents are redirected.

(d) In order to document compliance with Condition D.2.10, the Permittee shall maintain records of the temperature of the cupola gas stream.

(e) In order to document compliance with Condition D.2.2(i), the Permittee shall maintain records of the metal melted to produce castings using the cores produced by core machines EU217 and EU218.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.2(i) shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(a) Moldmaster pouring process, identified as 315, constructed in 1962 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by a baghouse, BH16, exhausting through stack SC-5.

(b) Moldmaster cooling process, identified as 316 and 317, constructed in 1964 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by two (2) baghouses, BH-12 and BH-13, exhausting through stacks SC7A and SC7B.

(c) Moldmaster casting shakeout process, identified as 318 and 320, constructed in 1964 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by one (1) baghouse, BH-1, exhausting through stack SC9.

(d) Moldmaster sand system and muller, identified as 311 and 313, constructed in 1962 with a maximum capacity of 105 tons of sand per hour with emissions controlled by one (1) rotoclone, RC-1, exhausting through stack SC-6.

(e) Stationmaster pouring process, identified as 342, constructed before 1977 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with emissions uncontrolled and exhausting internally.

(f) Stationmaster cooling process, identified as 343, constructed before 1977 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with emissions uncontrolled and exhausting internally.

(g) Stationmaster casting shakeout process, identified as 344, constructed in 1994 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with emissions controlled by one (1) baghouse, BH-15, exhausting through stack SC-12.

(h) Stationmaster sand system and muller, identified as 341, constructed before 1977 with a maximum capacity of 40 tons of sand per hour with emissions controlled by one (1) baghouse, BH-15, exhausting through stack SC-12.

(i) Slinger pouring process, identified as 374, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(j) Slinger cooling process, identified as 375, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(k) Slinger casting knockout process, identified as 376, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(l) Slinger sand system and muller, identified as 371, 372, and 373, constructed before 1968 with a maximum capacity of 8 tons of sand per hour with emissions controlled by one (1) rotoclone, RC-2, exhausting through stack SC-24.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

(a) The particulate matter (PM) from the baghouse BH-16 controlling the Moldmaster pouring/casting process shall not exceed 53.4 pounds per hour when operating at a process weight rate of 123 tons of metal castings and sand molds and cores per hour.

(b) The particulate matter (PM) from the baghouses BH-12 and BH-13 controlling the Moldmaster casting cooling process shall not exceed 53.4 pounds per hour when operating at a process weight rate of 123 tons of metal castings and sand molds and cores per hour.

(c) The particulate matter (PM) from the baghouse BH-1 controlling the Moldmaster casting shakeout process shall not exceed 53.4 pounds per hour when operating at a process weight rate of 123 tons of metal castings and sand molds and cores per hour.

(d) The particulate matter (PM) from the rotoclone RC1 controlling the Moldmaster sand system shall not exceed 51.8 pounds per hour when operating at a process weight rate of 105 tons of sand per hour.

(e) The particulate matter (PM) from the Stationmaster pouring/casting process shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47 tons of metal castings and sand molds and cores per hour.

(f) The particulate matter (PM) from the Stationmaster casting cooling process shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47 tons of metal castings and sand molds and cores per hour.

(g) The particulate matter (PM) from the baghouse BH15 controlling the Stationmaster shakeout and sand handling process shall not exceed 44.0 pounds per hour when operating at a process weight rate of 47 tons of metal castings and sand molds and cores per hour.

(h) The particulate matter (PM) from the rotoclone RC2 controlling the Slinger pouring/casting process, the Slinger casting cooling process, the Slinger shakeout process, and the Slinger sand handling process shall not exceed 19.2 pounds per hour when operating at a process weight rate of 10 tons of metal and sand molds and cores per hour.

The pound per hour limitation for (h) was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The pounds per hour limitations for (a), (b), (c), (d), (e), (f), and (g) were calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.2 Particulate Matter (PM) and Lead Emissions [326 IAC 2-2]

(a) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the Stationmaster casting shakeout system, the following conditions shall apply:

(1) The PM emissions from the baghouse BH15 controlling the Stationmaster casting shakeout and sand handling process and the shall not exceed 5.48 pounds per hour.

(2) The PM-10 emissions from the baghouse BH15 controlling the Stationmaster casting shakeout and sand handling process shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

(b) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply:

(1) The PM emissions from the Moldmaster pouring and Stationmaster pouring shall not exceed 4.20 pounds per ton of metal.

(2) The PM10 emissions from the Moldmaster pouring and Stationmaster pouring shall not exceed 2.06 pounds per ton of metal.

(3) The lead emissions from the Moldmaster pouring and Stationmaster pouring shall not exceed 0.0162 pounds per ton of metal.

(4) The PM emissions from the Moldmaster cooling and Stationmaster cooling shall not exceed 1.40 pounds per ton of metal.

(5) The PM10 emissions from the Moldmaster cooling and Stationmaster cooling, shall not exceed 1.40 pounds per ton of metal.

(6) The PM emissions from the Moldmaster shakeout and Stationmaster shakeout shall not exceed 0.500 pounds per ton of metal.

(7) The PM10 emissions from the Moldmaster shakeout and Stationmaster shakeout shall not exceed 0.500 pounds per ton of metal.

(8) The lead emissions from the Moldmaster shakeout and Stationmaster shakeout shall not exceed 0.0123 pounds per ton of metal.

(9) The PM emissions from the Moldmaster sand system and muller and Stationmaster sand system and muller shall not exceed 0.200 pounds per ton of metal.

(10) The PM10 emissions from the Moldmaster sand system and muller and Stationmaster sand system and muller shall not exceed 0.200 pounds per ton of metal.

(11) The mold sand used to produce castings using the cores produced by core

machines EU217 and EU218 shall not exceed 40,000 tons per 12 consecutive month period.

(12) The metal castings produced using cores made from core machines EU217 and EU218 shall be produced using only the Moldmaster or Stationmaster mold lines.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the control devices listed in this section.

Compliance Determination Requirements

D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 60 days after the two core machines EU217 and EU218 achieve maximum capacity but no later than 180 days after startup of the two core machines EU217 and EU218, the Permittee shall perform PM and PM10 testing on the baghouse BH15 controlling the Stationmaster shakeout and sand handling processes, using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.3.1 and D.3.2. PM10 includes filterable and condensible PM10. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.3.5 Particulate Matter Controls

In order to comply with the requirements of Conditions D.3.1 and D.3.2, all of the control devices listed in this section shall be in operation at all times when the associated processes are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.6 Visible Emissions Notations

(a) Visible emission notations of all of the controlled stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the processes listed in this section at least once per shift when the associated process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 5.0 and 12.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the foundry processes when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.3.9 Broken or Failed Bag Detection

In the event that bag failure has been observed.

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.10 Record Keeping Requirements

(a) In order to document compliance with Condition D.3.6, the Permittee shall maintain records of visible emission notations of all the controlled stack exhausts once per shift.

(b) In order to document compliance with condition D.3.7, the Permittee shall maintain records of the inlet and outlet differential static pressure once per shift during normal

operation when venting to the atmosphere.

(c) In order to document compliance with Condition D.3.8, the Permittee shall maintain records of the results of the inspections required under Condition D.3.8 and the dates the vents are redirected.

(d) In order to document compliance with Condition D.3.2(b)(11), the Permittee shall maintain records of the mold sand used to produce castings using the cores produced by core machines EU217 and EU218.

(e) To document compliance with Condition D.3.2(b)(12), the source shall keep records of the number of cores made from core machines EU217 and EU218 that are used on each of the following lines each month:

(1) Moldmaster pouring/cooling/shakeout line, and
(2) Stationmaster pouring/cooling, shakeout line.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.2(b)(11) and (12) shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(a) Shotblasting operations consisting of the following:

(1) BMD Blast, identified as 450, to be constructed in 2001, with a maximum capacity of 30 tons of metal per hour with emissions controlled by baghouse BH-10, exhausting through stack SC-22.

(2) N. Tumble Blast, identified as 443-1, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-7, exhausting through stack SC-19A.

(3) M. Tumble Blast, identified as 443-2, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-8, exhausting through stack SC-19B.

(4) S. Tumble Blast, identified as 443-3, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-6, exhausting through stack SC-19C.

(5) 42 Blast, identified as 442, constructed before 1977 with a maximum capacity of 18 tons of metal per hour with emissions controlled by a baghouse, BH-14, exhausting through stack SC-18.

(6) North Pangborn Blast, identified as 444, constructed before 1968 with a maximum capacity of 7.5 tons of metal per hour with emissions controlled by a baghouse, BH-11, exhausting through stack SC-20.

(b) Grinding operations consisting of the following:

(1) Head cleaning and stand grinders, identified as 447, constructed before 1977 with a maximum capacity of 14 tons of metal per hour total with emissions controlled by one (1) baghouse, BH-5, exhausting through stack SC-16.

(2) Two (2) Block grinders, identified as 441, constructed in 1986 with a maximum capacity of 16 tons of metal per hour total with emissions controlled by one (1) baghouse, BH-4, exhausting through stack SC-17.

(3) Swing grinder, identified as 446, constructed before 1977 with a maximum capacity of 15 tons of metal per hour with emissions controlled by one (1) baghouse, BH-4, exhausting through stack SC-17.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the following conditions shall apply:

(a) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000,

the particulate matter (PM) from the baghouse BH-10 controlling the BMD Blast shotblast machine shall not exceed 40.0 pounds per hour when operating at a process weight rate of 30 tons of metal castings per hour.

(b) The particulate matter (PM) from the baghouse BH-5 controlling the head cleaning and stand grinders shall not exceed 24.0 pounds per hour when operating at a process weight rate of 14 tons of metal castings per hour.

(c) The particulate matter (PM) from the baghouse BH-7 controlling the N. Tumble Blast shotblast machine shall not exceed 15.1 pounds per hour when operating at a process weight rate of 7 tons of metal castings per hour.

(d) The particulate matter (PM) from the baghouse BH-8 controlling the M. Tumble Blast shotblast machine shall not exceed 15.1 pounds per hour when operating at a process weight rate of 7 tons of metal castings per hour.

(e) The particulate matter (PM) from the baghouse BH-6 controlling the S. Tumble Blast shotblast machine shall not exceed 15.1 pounds per hour when operating at a process weight rate of 7 tons of metal castings per hour.

(f) The particulate matter (PM) from the baghouse BH-14 controlling the 42 Blast shotblast machine shall not exceed 28.4 pounds per hour when operating at a process weight rate of 18 tons of metal castings per hour.

(g) The particulate matter (PM) from the baghouse BH-11 controlling the North Pangborn Blast shotblast machine shall not exceed 15.8 pounds per hour when operating at a process weight rate of 7.5 tons of metal castings per hour.

(h) The particulate matter (PM) from the baghouse BH-4 controlling the block grinders and the swing grinder shall not exceed a combined total of 51.4 pounds per hour when operating at process weight rates of 16 and 15 tons of metal castings per hour, respectively.

The pounds per hour limitations for (b) through (h) were calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The pounds per hour limitation for (a) was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.4.2 Particulate Matter (PM) [326 IAC 2-2]

(a) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the BMD Blast shotblast machine and the grinders, the following conditions shall apply:

(1) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, the PM emissions from the baghouse BH10 controlling the BMD Blast shotblast machine shall not exceed 5.48 pounds per hour.

(2) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, the PM10 emissions from the baghouse BH10 controlling the BMD Blast shotblast machine shall not exceed 3.19 pounds per hour.

(3) The PM emissions from the baghouse BH5 controlling the head cleaning and stand grinders shall not exceed 5.25 pounds per hour.

(4) The PM emissions from the baghouse BH4 controlling the two (2) block grinders shall not exceed 0.23 pound per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

(b) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply to all of the shotblast machines at the plant:

(1) The PM emissions from each of the shotblast machines shall not exceed 0.230 pounds per ton of castings finished.

(2) The PM10 emissions from each of the shotblast machines shall not exceed 0.230 pounds per ton of castings finished.

(3) The lead emissions from each of the shotblast machines shall not exceed 0.0045 pounds per ton of castings finished.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

D.4.3 Operation Limitations [326 IAC 2-2]

(1) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, when the shotblast unit identified as 450 is fully operational, the two (2) existing shotblast units, identified as 445 and the south Pangborn blast, shall be removed from service. The shotblast unit identified as 450 shall not be operated at the same time as either of the two (2) existing shotblast units, identified as 445 and the south Pangborn blast.

(2) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, the shotblast unit identified as 450 shall limit total daily casting throughput to 444 tons per day (equivalent to 162,060 tons per year).

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the control devices listed in this section.

Compliance Determination Requirements

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Between June 2005 and January 2006, the Permittee shall perform PM and PM10 testing on the baghouse BH10 used to control the BMD 450 Blast shotblast machine using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.4.1 and D.4.2. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.4.6 Particulate Matter Controls

In order to comply with the requirements of Conditions D.4.1 and D.4.2, all of the control devices listed in this section shall be in operation at all times when the associated shotblast machine or grinder is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.7 Visible Emissions Notations

(a) Visible emission notations of all the controlled stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.4.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the shotblast machines and grinders at least once per shift when the associated shotblast machine or grinder is in operation when venting to the atmosphere. When for any one reading, the pressure drop across a baghouse is outside the normal range of 4.0 and 11.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.9 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the castings cleaning and finishing process when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.4.10 Broken or Failed Bag Detection

In the event that bag failure has been observed.

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.11 Record Keeping Requirements

(a) In order to document compliance with Condition D.4.7, the Permittee shall maintain records of visible emission notations of all of the controlled stack exhausts once per shift.

(b) In order to document compliance with condition D.4.8, the Permittee shall maintain records of the inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere.

(c) In order to document compliance with Condition D.4.9, the Permittee shall maintain records of the results of the inspections required under Condition D.4.9 and the dates the vents are redirected.

(d) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, and to document compliance with D.4.3(b), records shall be kept of the weight of casting throughput to shotblast machine 450.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.12 Reporting Requirements

Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, a quarterly summary of the information to document compliance with Condition D.4.3 shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
Core making operations consisting of the following:

(a) Four (4) 4-103 Isocure core machines, identified as 201, constructed in 1976 with a maximum capacity of 6 tons of cores per hour total with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. These core machines are supplied by the B&P mixer.

(b) One (1) 4-101 Cold Box core machine, identified as 202, constructed in 1986 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. This core machine is supplied by the B&P mixer.

(c) One (1) 315 D Cold Box core machine, identified as 203, constructed in 1986 with a maximum capacity of 1 ton of cores per hour total with emissions controlled by a scrubber, SB-4, exhausting through stack SB-4. This core machine uses a manual mixer.

(d) Two (2) EB-2 Cold Box core machines, identified as 204, constructed in 1993 with a maximum capacity of 2 tons of cores per hour total with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. These core machines are supplied by the B&P mixer.

(e) One (1) 4-102 Isocure core machine, identified as 205, constructed prior to 1977 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-4, exhausting through stack SB-4. This core machine uses a manual mixer.

(f) One (1) 4-103 Isocure core machine, identified as 206, constructed prior to 1977 with a maximum capacity of 1.5 ton of cores per hour with emissions controlled by a scrubber, SB-3, exhausting through stack SB-3. This core machine is supplied by an auger mixer.

(g) One (1) Insta Draw Isocure core machine, identified as 207, constructed prior to 1977 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-5, exhausting through stack SB-5.

(h) One (1) Pepset core system, identified as 208, constructed prior to 1970 with a maximum capacity of 2 tons of cores per hour with emissions uncontrolled exhausting through stack SU-14.

(i) One (1) Airset core system, identified as 209, constructed prior to 1977 with a maximum capacity of 2 tons of cores per hour with emissions uncontrolled exhausting through stack SU-15.

(j) One (1) Sutter core machine, identified as 210, constructed before 1977 with a maximum capacity of 1 tons of cores per hour with emissions uncontrolled exhausting internally.

(k) Three (3) Demler core machines, all three identified as 211, constructed before 1977 with a maximum capacity of 2 tons of cores per hour total with emissions uncontrolled exhausting internally.

(l) Three (3) Shalco core machines, identified as 213, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(m) One (1) core machine, identified as 214, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(n) Two (2) MC5 core machines, identified as 215, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(o) One (1) Shell core machine, identified as 216, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(p) One (1) CB-25 cold box core machine identified as EU-217 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-2, with emissions exhausting through stack SB-2. Core sand and resin will be supplied by the existing mixer identified as the B&P Mixer System I & II.

(q) One (1) CB-25 cold box core machine identified as EU-218 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-3, with emissions exhausting through stack SB-3. Core sand and resin will be supplied by the existing mixer identified as the Palmer Continuous Mixer.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-2]

In order to render the requirements of 326 IAC 8-1-6 (BACT), 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

(a) The resin usage for core machines 202 and 203 combined (two machines total) shall not exceed 373,500 pounds per twelve consecutive month period. TEA usage for core machines 202 and 203 combined (two machines total) shall not exceed 31,125 pounds per twelve consecutive month period.

(b) The resin usage for core machines 204 combined (two machines) shall not exceed 373,500 pounds per twelve consecutive month period. TEA usage for core machines 204 combined (two machines) shall not exceed 31,125 pounds per twelve consecutive month period.

(c) The VOC emissions (not including TEA) from each of the cold box core machines identified as emission units 202, 203, 204, EU217, and EU218 shall not exceed 0.05 pounds per pound of resin.

(d) The TEA emissions from each of the cold box core machines identified as emission units 202, 203, 204, EU217, and EU218 shall not exceed 2.0 pounds per ton of cores.

(e) The combined resin usage for core machines EU217 and EU218 shall not exceed 84,000 pounds per twelve consecutive month period. TEA usage for core machines EU217 and EU218 combined shall not exceed 7,000 pounds per twelve consecutive month period.

Therefore, the requirements of 326 IAC 8-1-6 (BACT) shall not apply. Compliance with above limits will also render the requirements of 326 IAC 2-2 and 40 CFR 52.21 not applicable.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.2 Record Keeping Requirements

(a) In order to document compliance with Conditions D.5.1 (a) and (b), the Permittee shall maintain records of the amount of TEA and resin usage for each of the core machines identified as 202, 203, 204, EU217, and EU218.

(b) To document compliance with Condition D.5.1 (c), the Permittee shall maintain records of the VOC content of the binders used for all of the Isocure core machines each month.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.3 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.5.1 (a), (b), and (e) shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
Coremaking operations consisting of the following:

(a) Two (2) Isocure core machines and sand handling system, identified as 200, constructed in 1997 and 1998 with a maximum capacity of 12.3 tons of cores per hour with emissions controlled by an acid scrubber, SB-1, for VOC control and a bin vent filter for particulate control exhausting through stack SB-1.

(b) One (1) core sand handling system, constructed in 1997 with a maximum capacity of 123 tons of sand per hour with particulate emissions controlled by a bin vent filter and exhausting through stack SB-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, 326 IAC 8-1-6 (BACT), and construction permit 005-7081-00006 issued on March 12, 1997, PSD BACT for the two Isocure core machines (200) shall consist of the following conditions:

(a) The volatile organic compounds (VOC) generated from the catalyst added to the Isocure core machines (200) shall be controlled by an acid scrubber system. The VOC emissions from stack SB-1 shall not exceed 1.34 pounds per hour.

(b) The core machines (200) shall be limited to a maximum production rate of 5,417 tons of cores per month.

This condition will also satisfy the requirements of 326 IAC 8-1-6 (BACT).

D.6.2 Particulate Matter [326 IAC 2-2]

Pursuant to CP005-7081, issued on March 12, 1997, in order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the core sand handling process and the core machines EU217 and EU218, the following conditions shall apply:

(1) The PM emissions from the bin vent filter controlling the core sand handling process shall not exceed 5.48 pounds per hour and 0.36 pound per ton of sand.

(2) The PM10 emissions from the bin vent filter controlling the core sand handling process shall not exceed 3.20 pounds per hour and 0.054 pound per ton of sand.

(3) The outlet grain loading from the bin vent filter controlling the core sand handling process shall not exceed 0.03 grains per dry standard cubic foot of exhaust air.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

D.6.3 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the core sand handling process shall not exceed 53.4 pounds per hour when operating at a process weight rate of 123 tons of sand per hour. The pounds per hour limitation was calculated with the

following equation:

Interpolation and extrapolation of the data for the process weight rate greater than 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55 P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.6.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the scrubber and the bin vent filter.

Compliance Determination Requirements

D.6.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, the Permittee shall perform VOC testing on the scrubber SB-1 controlling the core machines, using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.6.1. The VOC tests shall be repeated at least once every two and one-half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.6.6 Control Equipment

(a) In order to comply with the requirements of Condition D.6.1, the scrubber shall be in operation at all times when either of the associated core machines is in operation.

(b) In order to comply with the requirements of Conditions D.6.2 and D.6.3, the bin vent filter shall be in operation at all times when the core sand handling process is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.7 Scrubber Parametric Monitoring

The Permittee shall monitor and record the acid content, pressure drop, and flow rate of each of the scrubbers, at least once per shift when the associated core machines are in operation when venting to the atmosphere. When for any one reading the pressure drop across one of the scrubbers is outside of the normal range of 1.0 and 4.0 inches of water, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. When for any one reading the flow rate of one of the scrubbers is less than 50 gallons per minute, or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. When for any one reading, the acid content of one of the scrubbers is below a pH level of 2, or an acid content established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading, or when the flow rate is below the above mentioned minimum level for any one reading, or the pH level is above the above mentioned maximum for any one reading. Failure to take response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure, flow rates, and pH levels shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.6.8 Scrubber Inspections

An inspection shall be performed each calender quarter of the scrubber controlling the core machines when venting to the atmosphere. A scrubber inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.6.9 Failure Detection

In the event that a scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.6.10 Visible Emissions Notations

(a) Visible emission notations of the core room sand handling stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.6.11 Bin vent Filter Inspections

An inspection shall be performed each calendar quarter of the bin vent filter controlling the core room sand handling process when venting to the atmosphere.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.12 Record Keeping Requirements

(a) In order to document compliance with condition D.6.7, the Permittee shall maintain records of the following operational parameters for the scrubber once per shift during normal operation:

(1) pressure drop;

(2) flow rate; and

(3) acid content (pH level).

(b) In order to document compliance with Condition D.6.8, the Permittee shall maintain records of the results of the inspections required under Condition D.6.8 and the dates the vents are redirected.

(c) In order to document compliance with Conditions D.6.1, the Permittee shall maintain records of the amount of sand throughput for the core machines.

(d) In order to document compliance with Condition D.6.10, the Permittee shall maintain records of visible emission notations of the core room sand handling stack exhausts once per shift.

(e) In order to document compliance with Condition D.6.12, the Permittee shall maintain records of the results of the inspections required under Condition D.6.12 and the dates the vents are redirected.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.6.1 shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]	Insignificant Activities
The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment. (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)	

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the above listed processes shall not exceed the pounds per hour emission rate established as "E" in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: BMD shotblast machine 450
Parameter: throughput of metal castings
Limit: 162,060 tons of castings per 12 consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the "responsible official" as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: Cold box core machines identified as 202 and 203 (two machines total)
Parameters: total combined resin usage for both machines and total combined TEA usage for both machines
Limits: 373,500 pounds of resin per 12 consecutive month period
31,125 pounds of TEA per 12 consecutive month period

YEAR: _____

Month		Column 1	Column 2	Column 1 + Column 2
		This Month	Previous 11 Months	12 Month Total
Month 1	resin usage (pounds)			
	TEA usage (pounds			
Month 2	resin usage (pounds			
	TEA usage (pounds)			
Month 3	resin usage (pounds)			
	TEA usage (pounds)			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the "responsible official" as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: Cold box core machines identified as 204 (two machines total)
Parameters: total combined resin usage for both machines and total combined TEA usage for both machines
Limits: 373,500 pounds of resin per 12 consecutive month period
31,125 pounds of TEA per 12 consecutive month period

YEAR: _____

Month		Column 1	Column 2	Column 1 + Column 2
		This Month	Previous 11 Months	12 Month Total
Month 1	resin usage (pounds)			
	TEA usage (pounds			
Month 2	resin usage (pounds			
	TEA usage (pounds)			
Month 3	resin usage (pounds)			
	TEA usage (pounds)			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the "responsible official" as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: Two (2) Isocure core machines constructed in 1997, identified as 200
Parameter: Sand Throughput
Limit: 5,417 tons of cores per month for both machines total

YEAR: _____

Month	Usage
	tons of cores/month
Month 1	
Month 2	
Month 3	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the "responsible official" as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: castings produced using cores made from core machines EU217 and EU218
Parameter: throughput of metal castings
Limit: 4,000 tons of metal melted in the cupola to produce castings using cores from core machines EU217 and EU218 per 12 consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the "responsible official" as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: sand used to produce castings made using cores from core machines EU217 and EU218
Parameter: throughput of metal castings
Limit: 40,000 tons of sand per 12 consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the "responsible official" as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: Cold box core machines identified as EU217 and EU218
Parameters: total combined resin usage for both machines and total combined TEA usage for both machines
Limits: 84,000 pounds of resin per 12 consecutive month period
7,000 pounds of TEA per 12 consecutive month period

YEAR: _____

Month		Column 1	Column 2	Column 1 + Column 2
		This Month	Previous 11 Months	12 Month Total
Month 1	resin usage (pounds)			
	TEA usage (pounds			
Month 2	resin usage (pounds			
	TEA usage (pounds)			
Month 3	resin usage (pounds)			
	TEA usage (pounds)			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the "responsible official" as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: Moldmaster pouring, cooling, and shakeout, and the Stationmaster pouring, cooling, and shakeout.
Parameter: the number of cores made from core machines EU217 and EU218 that are used on each of the pouring/cooling/shakeout lines each month
Limit: The castings using cores made from core machines EU217 and EU218 shall be made using only the Moldmaster or Stationmaster mold lines (i.e. the Slinger mold line cannot be used as the mold line for these castings).

YEAR: _____

Month	Number of cores produced by core machines EU217 and EU218	Number of castings produced using cores made from core machines EU217 and EU218	Emission Unit Description	Number of Cores used per line
Month 1			Moldmaster pouring/cooling/shakeout line	
			Stationmaster pouring/cooling/shakeout line	
Month 2			Moldmaster pouring/cooling/shakeout line	
			Stationmaster pouring/cooling/shakeout line	
Month 3			Moldmaster pouring/cooling/shakeout line	
			Stationmaster pouring/cooling/shakeout line	

If the number of cores used to make castings on the Moldmaster and Stationmaster lines does not equal the number of cores produced by core machines EU217 and EU218, the Permittee must include an attachment to this report explaining the fate of the remaining cores.

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the "responsible official" as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name:Golden Casting Corporation
Source Address:1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked “No deviations occurred this reporting period”.

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: ______________________________

Title/Position: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Significant Source Modification
to a Part 70 Operating Permit

Source Name:	Golden Casting Corporation
Source Location:	1616 Tenth Street, Columbus, Indiana 47201
County:	Bartholomew
SIC Code:	3321
Operation Permit No.:	T005-6001-00006
Operation Permit Issuance Date:	April 12, 2002
Significant Source Modification No.:	005-15288-00006
Significant Permit Modification No.:	005-15520-00006
Permit Reviewer:	Nisha Sizemore

On April 29, 2002, the Office of Air Quality (OAQ) had a notice published in The Republic, Columbus, Indiana, stating that Golden Casting Corporation had applied for a significant source modification and significant permit modification to a Part 70 Operating Permit to construct and operate two (2) new core machines. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed. A public hearing was also held on July 2, 2002.

Dr. Charles Mitch provided written comments on the proposed permit during the public comment period and also provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

Compliance determination requirements for fugitive dust are not specified in the permit. Condition C.5 of the draft permit states that the Permittee shall not allow fugitive dust to escape beyond the property line of the source. However no compliance determination or compliance monitoring requirements for fugitive dust are specified under Section D for facility operating conditions. I request that compliance determination and compliance monitoring requirements for fugitive dust be incorporated into the permit. Emission limitations for fugitive dust are specified by 326 IAC 6-4-2. This IAC section provides standards based on comparing downwind concentrations of fugitive dust particles versus upwind or background concentrations. I request that compliance determination requirements be added to the permit based on the numeric measurements specified by 326 IAC 6-4-2 emission limitations for fugitive dust.

Response #1

As requested, IDEM has added the rule language from 326 IAC 6-4-2(3) and (4) and 326 IAC 6-4-5(b) and (c) to the permit Condition C.5.

Particulate matter (PM) emitted from a facility is sometimes exhausted through a stack and sometimes exhausts directly to the atmosphere. PM that cannot reasonably be collected and exhausted through a stack is referred to as fugitive dust. The permit regulates both PM emissions exhausted from stacks and fugitive PM emissions. The PM emissions exhausted from stacks can be directly measured through stack testing. For many of the facilities, the permit requires such stack testing. The fugitive emissions are regulated by Condition C.5 which requires that fugitive dust cannot be visibly escaping beyond the property line.

The installation and operation of the proposed new core machines is not expected to generate additional fugitive dust. Since January 1999, IDEM inspectors have performed five (5) full inspections and thirty-six (36) surveillances of Golden Castings and found no violations of the fugitive dust rules at 326 IAC 6-4. A

copy of the most recent inspection report is attached to this document. Additionally, at IDEM's request, the source has recently implemented a fugitive dust control plan. The plan outlines procedures the source will use to reduce fugitive dust emissions, such as using chemical dust suppressants on roads, sweeping and watering paved roads, covering some conveyors, using tarps on trucks, and storing baghouse dust in leak free containers. Since Golden Casting Corporation's implementation of the fugitive dust plan, IDEM has not observed any violations of the fugitive dust rules at the plant, nor has IDEM received any formal complaints from citizens about fugitive dust problems at the plant. As a result, IDEM has no evidence indicating that Golden Castings may be in violation of 326 IAC 6-4. Therefore, IDEM believes that upwind/downwind testing for fugitive dust is not necessary at this time.

Changes to Condition C.5 are shown below.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

(a) The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable. **Pursuant to 326 IAC 6-4-5(c), compliance with this requirement shall be determined by observations made by a qualified representative of the commissioner of visible emissions crossing the property line of the source at or near ground level.**

(b) Pursuant to 326 IAC 6-4-2(3), the Permittee shall not allow the ground level ambient air concentrations of fugitive dust to exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period. Pursuant to 326 IAC 6-4-5(b), ambient air concentrations shall be measured using the standard hi volume sampling and analysis techniques as specific by 40 CFR 50.

Comment #2

Compliance monitoring requirements for fugitive dust are not specified in the permit. Surveys at regular intervals of neighborhood residents for complaints about fugitive dust would be a practical method for providing compliance monitoring on fugitive dust. Assistance with such a survey could possibly be provided by the Lincoln-Central Neighborhood Center, a group representing neighborhood interests for the community in the vicinity of the foundry. I request that information provided by neighborhood residents be added to the permit as a requirement for compliance monitoring regarding fugitive dust emission limits.

Additionally for compliance monitoring on fugitive dust, I request that the permit provide instructions for citizens to submit complaints on fugitive dust to IDEM and Golden Casting. These complaints, if any, shall then be included as part of the required compliance certification reporting.

Response #2

Particulate matter that cannot reasonably be collected and exhausted through a stack is referred to as fugitive dust. The permit includes requirements for monitoring fugitive dust in Condition D.2.6(a). This condition requires the Permittee to monitor the visible emissions from the cupola charge door and the cupola cap and take reasonable response steps if the emissions are abnormal. The emissions from the cupola charge door and cupola cap are not collected and exhausted through a stack; therefore they are fugitive emissions. The requirement to take reasonable response steps if emissions are abnormal will require the Permittee to address abnormal visible emissions even if the emissions are not sufficient to cause a violation. This type of monitoring helps to prevent violations of the fugitive dust rules, as well as other rules that regulate emissions of particulate matter and opacity.

IDEM appreciates the public's concerns and suggestions regarding fugitive dust emissions from the foundry; however, IDEM does not believe that citizen surveys are a practical or enforceable method for the Permittee to monitor the fugitive dust emissions from the source. If citizens wish to file complaints about fugitive dust

emissions from the foundry, they should contact the inspector, Dick Sekula, at 1-800-451-6027, extension 2-8437.

Comment #3

Emission limits for SO_2, NOx, and VOC are given at Condition D.2.2 of the draft permit concerning emissions from the cupola furnace. However, no testing requirements for SO_2, NOx, or VOC are given in Condition D.2.4 for Compliance Determination Requirements. I request that testing requirements for these pollutants be added to this condition.

Response #3

The proposed permit limits the emissions of SO_2, NOx, and VOC to less than the PSD significance levels. For these pollutants, the PSD significance levels are 40 tons per year each. Therefore, the SO_2, NOx, and VOC emissions from the new core machines combined with the additional potential emission increases from the existing facilities are limited to just under 40 tons per year. For the cupola, the allowable emissions of SO_2, NOx, and VOC are 19.93, 15.81, and 19.94 pounds per ton of metal melted, respectively. Based on EPA approved emission factors the actual uncontrolled emissions of SO_2, NOx, and VOC from the cupola are expected to be 1.25, 0.18, and 0.10 pounds per ton of metal melted respectively. Therefore, the allowable emissions of SO_2 from the cupola are approximately 16 times higher than the expected uncontrolled actual levels. The allowable emissions of NOx from the cupola are approximately 88 times higher than the expected uncontrolled actual levels. The allowable emissions of VOC from the cupola are approximately 200 times higher than the expected uncontrolled actual levels. As a result, IDEM does not believe that stack tests on the cupola for these pollutants are warranted. However, the permit does require stack testing the cupola for other pollutants (PM, PM10, CO, lead, and beryllium) where the expected actual emissions are closer to the allowable emissions and/or a control device is necessary in order to reduce emissions to allowable levels.

Comment #4

The testing requirements described at D.2.4 for PM, PM10, CO, lead, and beryllium fail to give specific test methods, measurements or numeric standards. The description of “methods as approved by the Commissioner” is defective to satisfy the Federal requirements for Part 70 operating permits. Specification of actual test methods along with numeric standards are needed so that the public can evaluate and comment on their adequacy for assuring compliance determination. Failure to describe the test methods and numeric standards also applies to Conditions D.3.4, D.4.5, and D.6.5.

Response #4

The actual test method for a given pollutant is not specifically stated in the permit due to the fact that for many of the methods, there are different variations, or in some cases even equivalent methods that can be used. The majority of the applicable test methods a source may use are found in 40 CFR Part 60 Appendix A. This appendix lists the applicable method(s) that can be used when sampling for a given pollutant. For instance, method 17 and method 5 can both be used to measure filterable particulate matter. However, there are some restrictions regarding the use of method 17 which may preclude it's use in some specific instances. Since a determination of the applicability of a particular method is often not known at the time the permit is issued, the permit usually contains language specifying that testing for a given pollutant is required, and then it lists the methods that may be applicable. Often each method variation or equivalent method could be used with no reduction in the quality of the stack test data that will be given. However, in some cases, one or several of the methods for measuring the pollutant of interest may be unacceptable for a given source category. In order to assure that the correct methods have been chosen, the source is required to submit a stack test protocol which details the methods they will use to determine compliance. These protocols are reviewed by OAQ’s Compliance Data Section to make sure that the proposed test program is acceptable. In many cases this requires a detailed analysis of stack or process conditions that could not

be done at the time of permitting. As a result, IDEM has not added the specific stack test methods to the permit conditions.

Comment #5

The compliance monitoring at D.2.6(a) for visible emissions notations fail to specify enforceable requirements. Having a trained employee record whether emissions are "normal or abnormal" is entirely subjective and not enforceable. Numeric methods and standards, such as opacity readings, need to be specified for visible emission notations. Failure to provide enforceable methods with numeric standards for compliance monitoring also applies to Conditions D.3.6, D.4.7, and D.6.5. Additionally, it seems that the permit is only enforceable during daylight hours, since there appears to be no way to monitor fugitive dust at night.

Response #5

The calibration of what is normal and abnormal is established in the training of the employee (subsection D.2.6(d)) on "the appearance and characteristics of normal visible emissions for that specific process." Because the emission characteristics vary with the type of process, it is not reasonable to establish a generic definition of "normal". However, for many emission units, including some of those at Golden Casting, "normal" visible emissions is equivalent to no visible emissions. Therefore, it is very straight forward for an employee to determine whether the emissions are normal or abnormal without the necessity of formal smoke school training. This method of determining whether visible emissions are "normal" is very similar to the compliance monitoring methods cited by EPA's Portland Cement MACT, 40 CFR 63, Subpart LLL for determining whether raw mills and finish mills are operating properly. Please refer to 40 CFR 63.1350(e).

The concept of "practical enforceability" should be applied to an emission limitation or standard. Monitoring requirements should be judged based upon their ability to ensure compliance with those emission limitations or standards. In this case, the emission limitations are the PM and opacity limitations established in 326 IAC 5-1, 326 IAC 6-3-2, and the PM and PM10 limits necessary to render PSD not applicable. IDEM, OAQ considers the visual emissions notations of this permit to be part of an overall compliance monitoring strategy that is sufficient to ensure compliance with these rules. Other parts of the compliance monitoring strategy involve monitoring the pressure drop across the baghouses; monitoring the pressure drop, flow rate and pH of the scrubber; and performing inspections of baghouses and scrubbers. Requiring Permittees subject to the visual emissions notation condition to be trained in Method 9 monitoring, is overly burdensome to the source and not necessary. During IDEM, OAQ inspections, the inspector will perform Method 9 monitoring to also ensure compliance with 326 IAC 5-1. At this time, the inspector will review the visual emission notation records and establish a correlation between his Method 9 result and whether the source identifies the emissions as "normal" or "abnormal". He will be able to establish compliance with 326 IAC 5-1 over the time period covered by the records, based on the records and his correlation to the Method 9 results.

Although visible emission observations are required only during daylight hours, the source is required to monitor the pressure drop across the baghouses and scrubbers every shift (including night shifts). Therefore, the permit is enforceable at night.

Comment #6

There were some studies done several years ago by Arvin Industries, which has since undergone a merger. The building across the street from the foundry was formerly the Arvin headquarters. It's a beautiful old building that deserves to be reused, and arrangements are being made to have the building turned over the United Way. I think that's an excellent use for the building and I support that. But I think it's a concern that the United Way, with many of its social service groups that are affiliated with it, as a result, will be having many of the elderly, the poor, the sick, some of the most vulnerable people in the community will be coming into that building. I think it is of special concern to make sure that the area is protected to the fullest extent possible. So I think that's why it's worth taking this very seriously.

Response #6

The National Ambient Air Quality Standards (NAAQS) establish minimum air quality standards to protect human health. In order to assure compliance with the PM10 NAAQS in the Columbus area, IDEM operated a monitor to measure PM10 concentrations in Columbus from August 22, 2000 until August 31, 2001. The monitor was located in a parking lot north of the General Office Building of Arvin North American Automotive, approximately 600 feet north of the properly line of Golden Casting. The PM10 monitor in Columbus measured PM10 concentrations well below the NAAQS which are established by EPA. The concentrations of particulate matter measured in the air at this location in Columbus were compared to both the short term (24-hour) and long term (annual) NAAQS. To attain the short-term standard, the levels must be below 150 ug/m^3. The highest daily average recorded in Columbus was 75 ug/m^3, one-half of the standard. To attain the long term (annual) standard, the levels must be below 50 ug/m^3. Quarterly averages of the data collected showed an average of 25.9 ug/m^3. Averaging all the values for the entire period produced an average of 25.2 ug/m^3. Regardless of which method is used to calculate the average, the value is approximately one-half of the long term standard. Based on the results of this monitoring, IDEM does not believe that the emissions from Golden Castings cause or contribute to a significant impact on public health.

The final report summarizing the results of the PM10 study in Columbus can be found on IDEM's website at http://www.in.gov/idem/air/amb/ambient/summary/reports/columbus_study.pdf.

Randy and Maria Bulthius provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

We live directly across the street from the foundry. The dust is eating the paint on our cars. It's on our aluminum siding. We power wash. It's there the next day. It's making our children sick. Our fifteen year old son has been exposed to such an amount of dust since we moved to the foundry. He's developed migraines so he spends a great deal of time in bed or lying on the couch. My youngest son has severe allergies. We go through Benadryl like crazy. We go to the doctor more often than we really want to. The dust is damaging our cars, and you can't tell me that if the dust is damaging the cars, it's not damaging our kids' lungs and our lungs. So that's one of our major concerns.

Response #1

As previously pointed out in response to Dr. Mitch's comment #6, the National Ambient Air Quality Standards (NAAQS) establish minimum air quality standards to protect human health. The PM10 monitor in Columbus measured PM10 concentrations well below the NAAQS which are established by EPA. The concentrations of particulate matter measured in the air at this location in Columbus were compared to both the short term (24-hour) and long term (annual) NAAQS. To attain the short-term standard, the levels must be below 150 ug/m^3. The highest daily average recorded in Columbus was 75 ug/m^3, one-half of the standard. To attain the long term (annual) standard, the levels must be below 50 ug/m^3. Quarterly averages of the data collected showed an average of 25.9 ug/m^3. Averaging all the values for the entire period produced an average of 25.2 ug/m^3. Regardless of which method is used to calculate the average, the value is approximately one-half of the long term standard. Based on the results of this monitoring, IDEM does not believe that the emissions from Golden Castings cause or contribute to a significant impact on public health.

This permit includes many monitoring and testing requirements to ensure that particulate matter emissions are in continuous compliance with air quality rules. This permit requires the source to monitor all of the particulate matter control devices each shift (including night shifts). If an abnormal situation is observed, the permit requires the source to take corrective actions to fix the problem. The permit also requires stack testing for many facilities which the source has never tested, or has not tested for several years.

Andrew Forsythe provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

The foundry is just a bad neighbor. I feel like they can't run the operation at the level they're running at now, and I'd hate to see any increases from the foundry. You basically can't have your windows open. If you do and you dust, the rag is black. The furnace filter when I change it is completely black within less than 60 days, which is relatively unusual. If Golden is in compliance then the laws should be changed, because the way the laws and the permit are written, they do not protect us. The dust from the foundry eats into paint on cars.

Response #1

The construction permit rules require that a permit be issued if the applicant is required to comply with permit conditions detailing the requirements of the air pollution control rules and any other conditions necessary to protect public health. The EPA and the Indiana Air Pollution Control Board approve the laws that govern air quality in Indiana. IDEM is delegated to enforce those laws as they currently exist, but does not have the sole authority to change them.

If citizens wish to participate in the process for creating new laws or amending existing laws that govern air pollution, they can participate in the Air Pollution Control Board meetings. There are two ways for a person to receive a copy of the agenda for upcoming board meetings. The first option is an email notification that's sent out two weeks before the board meeting. A notification goes out to those on the list that the board materials are available on line for viewing/downloading. http://www.IN.gov/idem/air/rules/airboard/. The second option is for people that wish to get the agenda by mail. The mailing also includes the web address to view the board documents on line. Anyone can email Chrystal Wagner to request to be added to the email notification at cawagner@dem.state.in.us or call Karol Chuma at 317-233-0426 to be added to the agenda mailing list.

Jean Terpstra provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

I did go to the meeting we held last year and was surprised as we discussed the soot problem in the neighborhood that maybe it needed to be redefined as fugitive dust and we sort of talked about it. The compliance surveillance of just coming by and seeing if you could see it migrate seems so incredibly inadequate for what we have going here. It seems to me that you should not have to SEE dust cross property line to prove a violation. You should be able to prove it by taking samples and have a violation that way. Is there any way to make some sample sites and do a measure, like a radon test, over 12 days? I know you then have some concerns about how you trace the soot to its proper source. But foundries, which aren't usually in residential neighborhoods anyway, have a kind of signature, which if you got enough of a sample, you should be able to tell what kind of soot it is and where it came from.

I was reading a statement in relation to their last permit that said you had not received any complaints of fugitive dust or soot, and I was appalled because it seemed to me that almost everybody at that meeting was saying there's soot. I'm hearing it again today. Everybody at this meeting is saying there's soot, it's bad for our homes, it's bad for our cars, it's bad for our children, it's bad for us, and it's coming from the foundry.

Response #1

IDEM cannot prove a violation against Golden Castings by taking samples of dust from neighboring houses and cars. The existing laws require that fugitive dust cannot cross the property line at ground level (emphasis added). Other rules that regulate the amount of particulate matter that can be emitted from stacks specify that only a certain amount or concentration of particulate matter can be emitted. Collecting samples will not provide sufficient information to know whether the dust crossed the property line at ground level, nor will it provide sufficient information to know how much was emitted during any one hour or day, from which stack or facility it was emitted, or the concentration level of the particulate matter from any one stack or facility. The dust that accumulates on neighboring houses and cars may very well be dust that is emitted from the foundry, but it is also possible that the dust accumulates over a period of time such that the emission rates and concentration levels from the foundry are still well below the levels allowed by EPA and Indiana laws that govern air pollution.

Although IDEM cannot ascertain compliance by collecting dust samples, IDEM does have several other methods of determining whether a source is in compliance with EPA and Indiana laws governing air pollution. As previously stated, IDEM has performed thirty-six (36) surveillances and five (5) full inspections since January 1999 and found no violations of the fugitive dust rules at 326 IAC 6-4. IDEM agrees that periodic surveillances alone are not sufficient to ensure that the foundry maintains continuous compliance with the emission limits in the permit. However, surveillances aimed at checking whether dust is visible crossing the property line at ground level are only one of the methods IDEM uses to determine the compliance status of a source with respect to particulate matter emissions. Excess particulate matter emissions can also be detected by performing a stack test to measure the emissions that are exhausted from a facility through a stack. The Part 70 permit issued to Golden Castings on April 12, 2002 requires particulate matter stack tests for two facilities at the foundry. The revised permit requires two additional particulate matter stack tests for facilities at the foundry. Excess particulate matter emissions can also be detected by checking the visible emissions (opacity) from emission units that cause particulate matter emissions. This permit requires the Permittee to check the visible emissions from each control device, the cupola charge door, and the cupola cap at least once per shift during daylight operations, and further requires the Permittee to take reasonable response steps if the emissions are abnormal. Additionally, during surveillances and full inspections, IDEM's trained inspectors perform U.S. EPA approved test Method 9 to measure opacity from the stacks.

Comment #2

Is there any way we can know what monitoring has been done, and what the results are, as members of the community who are concerned and affected. We'd like to know how often it's being done and the results. Right now we feel like nothing is being done. We don't know if there's an inspector driving by once a month, once a year, or he's never been down here, or it rained the day he came.

Response #2

IDEM will put the commenter on a list to automatically receive copies of all reports summarizing future inspections and surveillances at Golden Casting Corporation. Other people may also be added to the list by submitting a written request to IDEM with their names and mailing addresses. Additionally, copies of the most recent inspection report and the most recent surveillance report are attached to this document.

August Tindle provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

Have there been any violations in past 10 years?

Response #1

IDEM has taken enforcement action against Golden Casting for violations of the fugitive dust rule, 326 IAC 6-4, on January 6, 1994 and July 11, 1997. In both cases, Agreed Orders were signed. The Agreed Orders were effective on January 9, 1995 and December 10, 1997 respectively.

Golden Casting has performed three stack tests, which all demonstrated compliance with the applicable emission limits. The first test was performed in December 1987 and measured particulate matter emissions from the cupola. The second test was performed in December 1998 and measured triethylamine emissions from a scrubber controlling several core machines. The third was performed in January 2001 for particulate matter emissions from a shotblaster.

This permit requires several more stack tests to measure emissions from various facilities at the plant. This permit also sets up a schedule for the Permittee to repeat testing on a regular basis to ensure continuing compliance with the permit limits.

Comment #2

Who writes the environmental laws for Indiana?

Response #2

They are written by the Air Pollution Control Board, which consists of people appointed by the Governor. These people represent a broad range of interests.

Comment #3

Are there tighter restrictions on a foundry located in a residential area than for a foundry located in the country?

Response #3

If a source is located in an area designated as nonattainment with the National Ambient Air Quality Standards, then the source will need to comply with more stringent requirements. However, Bartholomew County is considered attainment for all criteria pollutants. For attainment areas, the air pollution laws don't distinguish between facilities located in the country and facilities located in residential areas. The laws require facilities located in nonresidential areas to comply with the same standards that are required for facilities located in urban or residential areas. Local zoning laws govern where a facility is allowed to locate.

Terry Lowe provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

I've run a daycare for five years. The foundry is directly behind my kitchen window. I cannot open my kitchen window without black soot then going all over my entire home. There have been several times when I've been outside with the kids and I've had to bring them in because of some kind of an explosion at the foundry and this black soot smoke comes heading our way. I've had to rush the kids into the house and close all the windows because I didn't know what it was. You can't tell me this stuff is healthy for people and it has to be coming from the foundry. There's black soot all over their parking lot and their cars. I used to babysit for one of the people working at the foundry. He's covered with black soot from head to toe and has to take a shower before he leaves that place because he's covered with black soot. I'm hoping they're taking care of the people that work for them. They need to take care of the dust situation for the people that live around it because it cannot be healthy. Anything that eats the paint off a car is not healthy.

Response #1

This permit includes many new monitoring and testing requirements to ensure that particulate matter emissions are in continuous compliance with air quality rules. This permit requires the source to monitor all of the particulate matter control devices each shift (including night shifts). If an abnormal situation is observed, the permit requires the source to take corrective actions to fix the problem. The permit also requires stack testing for many facilities which the source has never tested, or has not tested for several years. If citizens wish to file complaints about fugitive dust emissions from the foundry, they should contact the inspector, Dick Sekula, at 1-800-451-6027, extension 2-8437.

Jane Herold provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

I'm the one with the car that is badly damaged. It's out in the parking lot if anybody would like to go and check it out.

Response #1

As previously stated in response to Mr. Lowe's comment, this permit includes many new monitoring and testing requirements to ensure that particulate matter emissions are in continuous compliance with air quality rules. This permit requires the source to monitor all of the particulate matter control devices each shift (including night shifts). If an abnormal situation is observed, the permit requires the source to take corrective actions to fix the problem. The permit also requires stack testing for many facilities which the source has never tested, or has not tested for several years. If citizens wish to file complaints about fugitive dust emissions from the foundry, they should contact the inspector, Dick Sekula, at 1-800-451-6027, extension 2-8437.

Dannis Tibbetts provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

This document you passed out shows a series of major source thresholds for PM, SO2, CO, and various things. I just find it surprising that Golden is within a hundredth of a percent of most of the limits, but they just don't quite exceed any of them. I've been in the engineering business for 32 years and I've never seen data like this before. It looks like cooked data.

Response #1

The Prevention of Significant Deterioration (PSD) rules establish that if a modification exceeds any of the major source thresholds, then the modification must comply with the rigorous requirements of the PSD rules. These rigorous requirements include installing the best available control technology (BACT) that is technically and economically feasible, and completing an air quality analysis that shows that the modification will not contribute to a violation of the National Ambient Air Quality Standards (NAAQS) or violate the PSD increment. Golden has chosen to limit the emissions from this modification to levels just below the significance level so that the requirements of the PSD rules will not apply to this modification. Although actual emissions from the modification may be much lower than the major source thresholds, IDEM only has the authority to limit emissions to just below the significance levels, as shown in the table referenced by the commenter. The data shown represents the allowable emissions from the modification, not the projected actual emissions as a result of the modification.

Brian Kuznicki provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

Have other pollutants besides PM10 been monitored near the foundry? Can we get some monitoring done for other pollutants?

Response #1

Only PM10 monitoring has been performed in Columbus. IDEM does not have any evidence to suggest that monitoring for other pollutants is necessary.

Comment #2

I suggest a video camera to monitor fugitive dust from the foundry for several months.

Response #2

The fugitive emissions are regulated by Condition C.5 which requires that fugitive dust cannot be visibly escaping beyond the property line. The installation and operation of the proposed new core machines is not expected to generate additional fugitive dust. Since January 1999, IDEM inspectors have performed five (5) full inspections and thirty-six (36) surveillances of Golden Castings and found no violations of the fugitive dust rules at 326 IAC 6-4. Additionally, at IDEM's request, the source has recently implemented a fugitive dust control plan. The plan outlines procedures the source will use to reduce fugitive dust emissions, such as using chemical dust suppressants on roads, sweeping and watering paved roads, covering some conveyors, using tarps on trucks, and storing baghouse dust in leak free containers. As a result, IDEM has no evidence indicating that Golden Castings may be in violation of 326 IAC 6-4. Therefore, IDEM believes that installing a video camera to monitor fugitive dust from the foundry is not necessary at this time.

Shondra Zaborowski provided oral comments during the public hearing. A summary of the comments is as follows:

Comment #1

Who performs surveillance at the foundry?

Response #1

Inspectors in IDEM's Office of Air Quality, Compliance Branch perform surveillance at the foundry. Dick Sekula is the inspector specifically assigned to Golden Castings. Dick has performed surveillance as well as full inspections of the foundry. DJ Knotts and Joe Foyst have also performed surveillance of the foundry several times. If citizens wish to file complaints about fugitive dust emissions from the foundry, they should contact the inspector, Dick Sekula, at 1-800-451-6027, extension 2-8437.

Frank J. Deveau, Sommer & Barnard, on behalf of Golden Casting Corporation, submitted written comments on the proposed permit during the public comment period. A summary of the comments is as follows:

Comment

We request that IDEM treat Golden's requested modifications fairly and equitably. Accordingly, we further request that the permit modifications and any related conditions or restrictions be consistent with those applied to other similarly situated permittees. In light of Golden's exemplary compliance record, we anticipate that IDEM will continue its even handed approach to permitting.

Response

Although specific permit conditions requiring stack testing and compliance monitoring must be drafted on a case by case basis, the permit limits are established based on the applicable rules. IDEM believes that all of the permit conditions are fair and equitable.

Doug Johnson, on behalf of the Sierra Club, submitted written comments on the proposed permit during the public comment period. A summary of the comments is as follows:

Comment

I am the chair for the Winding Waters Group of Sierra Club. We are responsible for Decatur, Jackson, Jennings, and Bartholomew Counties. Although our newspaper informed us that the emissions from Golden Castings are acceptable, I think there are many people in Columbus who feel those emissions are still too much. Although the neighbors have complained for years, they don't feel their concerns have been addressed. I respectfully request a hearing be held here in Columbus to hear the concerns of the citizens of this community.

Response

IDEM held a public hearing on July 2, 2002 in Columbus. A summary of the comments submitted during the hearing as well as IDEM's responses to the comments are included here in this document. Additionally, copies of the public hearing transcript are available from IDEM upon request for a reasonable copying fee.

Upon further review, IDEM decided to make the following revisions to the permit. New text is shown in **bold** and deleted text is shown with a ~~strikeout~~.

Revision #1

During further discussions between IDEM and Golden Casting representatives on July 24, 2002, the applicant has decided they would like the flexibility to be able to finish the castings on any shotblast machine at the plant. This will simplify the record keeping requirements. Changes to the permit are shown below. Changes to the reporting form are shown in revision #2.

D.4.2 Particulate Matter (PM) [326 IAC 2-2]

(a) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the BMD Blast shotblast machine and the grinders, the following conditions shall apply:

(1) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, the PM emissions from the baghouse BH10 controlling the BMD Blast shotblast machine shall not exceed 5.48 pounds per hour.

(2) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, the PM10 emissions from the baghouse BH10 controlling the BMD Blast shotblast machine shall not exceed 3.19 pounds per hour.

(3) The PM emissions from the baghouse BH5 controlling the head cleaning and stand grinders shall not exceed 5.25 pounds per hour.

(4) The PM emissions from the baghouse BH4 controlling the two (2) block grinders shall not exceed 0.23 pound per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

(b) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply to **all of** the ~~BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast~~ shotblast machines **at the plant**:

(1) The PM emissions from each of the ~~BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast~~ shotblast machines shall not exceed 0.230 pounds per ton of castings finished.

(2) The PM10 emissions from each of the~~ BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast~~ shotblast machines shall not exceed 0.230 pounds per ton of castings finished.

(3) The lead emissions from each of the~~ BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast~~ shotblast machines shall not exceed 0.0045 pounds per ton of castings finished.

~~(4) The metal castings produced using cores made from core machines EU217 and EU218 shall be produced using only the BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast shotblast machines.~~

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

D.4.11 Record Keeping Requirements

(a) In order to document compliance with Condition D.4.7, the Permittee shall maintain records of visible emission notations of all of the controlled stack exhausts once per shift.

(b) In order to document compliance with condition D.4.8, the Permittee shall maintain records of the inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere.

(c) In order to document compliance with Condition D.4.9, the Permittee shall maintain records of the results of the inspections required under Condition D.4.9 and the dates the vents are redirected.

(d) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, and to document compliance with D.4.3(b), records shall be kept of the weight of casting throughput to shotblast machine 450.

(e) ~~To document compliance with Condition D.4.2(b)(4), the source shall keep records of the throughput of castings using cores made from core machines EU217 and EU218 to each of the following individual emission units:~~

~~(1) the BMD blast shotblast machine,~~
~~(2) the N. Tumble Blast shotblast machine,~~
~~(3) S. Tumble Blast shotblast machine, and~~
~~(4) M. Tumble Blast shotblast machine.~~

~~(f)~~ All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.12 Reporting Requirements

Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, a quarterly summary of the information to document compliance with Condition~~s D.4.2(b)(4) and~~ D.4.3 shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Revision #2

The record keeping requirements listed in Condition D.3.10(e) have been reworded for clarity. The quarterly report form has also been changed accordingly.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.10 Record Keeping Requirements

(e) To document compliance with Condition D.3.2(b)(12), the source shall keep records of the ~~throughput of castings using~~ **number of** cores made from core machines EU217 and EU218 ~~to each of the following individual emission units~~ **that are used on each of the following lines** each month:

(5) Moldmaster pouring**/cooling/shakeout line**, **and**
(6) ~~Moldmaster cooling,~~
~~(7) Moldmaster shakeout processes,~~
~~(8)~~ Stationmaster pouring**/cooling, shakeout line.**
~~(5) Stationmaster cooling, and~~
~~(6) Stationmaster shakeout.~~

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Golden Casting Corporation
Source Address: 1616 Tenth Street, Columbus, Indiana 47201
Mailing Address: 1616 Tenth Street, Columbus, Indiana 47201
Part 70 Permit No.: T005-6001-00006
Facility: Moldmaster pouring, cooling, and shakeout, **and** Stationmaster pouring, cooling, and shakeout~~, BMD blast shotblast machine, the N. Tumble Blast shotblast machine, the M. Tumble Blast shotblast machine, and the S. Tumble Blast shotblast machine~~
Parameter: the ~~throughput of castings using~~ **number of** cores made from core machines EU217 and EU218 ~~to each of the following individual emission units~~ **that are used on each of the pouring/cooling/shakeout lines** each month
Limit: These castings shall be made using only the Moldmaster or Stationmaster mold lines ~~and only the BMD or Tumblast shotblast machines~~ (i.e.~~ no other shotblast machines can be used to finish these castings and~~ the Slinger mold line cannot be used as the mold line for these castings).

YEAR: _____

Month	Number of cores produced by core machines EU217 and EU218	**Number of Castings produced by cores made from core machines EU217 and EU218**	Emission Unit Description	~~Castings Throughput~~ **Core Usage/Castings Throughput**	~~Throughput~~
				Number of ~~Castings~~ **Cores/Castings used per line**	~~tons of metal~~
Month 1			Moldmaster pouring**/cooling/shakeout line**		
			~~Moldmaster cooling~~		
			~~Moldmaster shakeout~~		
			Stationmaster pouring**/cooling/shakeout line**		
			~~Stationmaster cooling~~		

Month	Number of cores produced by core machines EU217 and EU218	**Number of Castings produced by cores made from core machines EU217 and EU218**	Emission Unit Description	~~Castings Throughput~~ **Core Usage/Castings Throughput**	~~Throughput~~
				Number of ~~Castings~~ **Cores/Castings used per line**	~~tons of metal~~
			~~Stationmaster shakeout~~		
			~~BMD shotblast~~		
			~~N. Tumble Blast~~		
			~~M. Tumble Blast~~		
			~~S. Tumble Blast~~		
Month 2			Moldmaster pouring**/cooling/shakeout line**		
			~~Moldmaster cooling~~		
			~~Moldmaster shakeout~~		
			Stationmaster pouring**/cooling/shakeout line**		
			~~Stationmaster cooling~~		
			~~Stationmaster shakeout~~		
			~~BMD shotblast~~		
			~~N. Tumble Blast~~		
			~~M. Tumble Blast~~		

Month	Number of cores produced by core machines EU217 and EU218	**Number of Castings produced by cores made from core machines EU217 and EU218**	Emission Unit Description	~~Castings Throughput~~ **Core Usage/Castings Throughput**	~~Throughput~~
				Number of ~~Castings~~ **Cores/Castings used per line**	~~tons of metal~~
			~~S. Tumble Blast~~		
Month 3			Moldmaster pouring**/cooling/shakeout line**		
			~~Moldmaster cooling~~		
			~~Moldmaster shakeout~~		
			Stationmaster pouring**/cooling/shakeout line**		
			~~Stationmaster cooling~~		
			~~Stationmaster shakeout~~		
			~~BMD shotblast~~		
			~~N. Tumble Blast~~		
			~~M. Tumble Blast~~		
			~~S. Tumble Blast~~		

If the number of cores used to make castings on the Moldmaster and Stationmaster lines does not equal the number of cores produced by core machines EU217 and EU218, the Permittee must include an attachment to this report explaining the fate of the remaining cores.

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification by the “responsible official” as defined by 326 IAC 2-7-1(34) is required for this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification.

Source Background and Description

Source Name:	Golden Casting Corporation
Source Location:	1616 Tenth Street, Columbus, Indiana 47201
County:	Bartholomew
SIC Code:	3321
Operation Permit No.:	T005-6001-00006
Operation Permit Issuance Date:	April 12, 2002
Significant Source Modification No.:	005-15288-00006
Significant Permit Modification No.:	005-15520-00006
Permit Reviewer:	Nisha Sizemore

The Office of Air Quality (OAQ) has reviewed a modification application from Golden Casting Corporation relating to the construction of the following emission units and pollution control devices:

(a) One (1) CB-25 cold box core machine identified as EU-217 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-2, with emissions exhausting through stack SB-2. Core sand and resin will be supplied by the existing mixer identified as the B&P Mixer System I & II.

(b) One (1) CB-25 cold box core machine identified as EU-218 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-3, with emissions exhausting through stack SB-3. Core sand and resin will be supplied by the existing mixer identified as the Palmer Continuous Mixer.

Special Issue - Increased Utilization of Existing Processes

Golden Casting has obtained a new contract for additional cast parts. In order to make the cast parts for the new contract, Golden must produce additional cores. The cores could be produced using existing core machines, but re-tooling would cost almost as much as installing new core machines. Additionally, using existing core machines to produce the new cores would likely require parts of the existing core making process to operate more than one shift per day, which would increase operating costs. Installing two new core machines to produce the new cores will allow Golden to continue to operate their entire core room for only one shift per day. Since the construction and operation of the two new core machines is a necessary part of fulfilling a contract for new cast parts, IDEM has determined that the construction and operation of the two new core machines would result in an increased utilization of the other existing foundry processes, including melting, pouring, cooling, shakeout, sand handling, and finishing. The increases in potential to emit from these other existing foundry processes have been included in the applicability analysis for this modification. In order to avoid PSD applicability, Golden has chosen to limit the amount of cores from the new core machines to 3,500 tons per year and to

limit the amount of castings produced using cores made on the new core machines to 4,000 tons per year. These production limits, in combination with short-term emission limits on each process, are sufficient to render the requirements of PSD not applicable.

History

On February 5, 2002, Golden Casting Corporation submitted an application to the OAQ requesting to add two new cold box core machines to their existing plant. Golden Casting Corporation was issued a Part 70 permit on April 12, 2002. The source has also submitted an application #005-15324-00006 to the OAQ on February 26, 2002 for an approval to make modifications to their existing cupola melt furnace. IDEM has determined that these two applications should be reviewed separately because the two projects are unrelated.

Enforcement

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (inches)	Flow Rate (acfm)	Temperature (^{0}F)
SB-2	core machine EU-217	40	18	6,360	ambient
SB-3	core machine EU-218	45	14	3,850	ambient

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and the Part 70 Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 5, 2002. Additional information was received on March 8, 2002, March 13, 2002, and April 17, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit from New Units (tons/year)	Potential to Emit from Increased Utilization of existing processes (tons/year)	Total Potential To Emit of Modification (tons/year)
PM	0	158.7	158.7
PM-10	0	52.07	52.07
SO_2	0	2.54	2.54
VOC	38.43	34.3	72.73
CO	0	290	290
NO_x	0	0.22	0.22

HAP's	Potential To Emit from New Units (tons/year)	Potential to Emit from Increased Utilization of existing processes (tons/year)	Total Potential To Emit of Modification (tons/year)
beryllium	0	0.00039	0.00039
chromium	0	0.005	0.005
cobalt	0	0.0004	0.0004
nickel	0	0.008	0.008
arsenic	0	0.002	0.002
cadmium	0	0.001	0.001
selenium	0	0	0
lead	0	0.045	0.045
phenol	0	0.003	0.003
biphenol	0.71	0	0.71
benzene	0	0.00061	0.00061
formaldehyde	0.53	0	0.53
xylene	1.58	0.00004	1.58
toluene	0	0.00006	0.00006
hydrogen cyanide	0	0.00012	0.00012
aromatic amines	0	0.00002	0.00002
C_2 to C_5 aldehydes	0	0.00006	0.00006
triethylamine (TEA)	3.5	0	3.5
naphthalene	1.58	0.00002	1.58
cumene	0.87	0	0.87
TOTAL	8.77	0.06572	8.83566

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4) and 326 IAC 2-7-10.5(f)(7), because it is a modification for which the potential to emit PM, PM10, and VOC are each greater than 25 tons per year and the potential to emit CO is greater than 100 tons per year.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Bartholomew County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is one of the 28 listed source categories under 326 IAC 2-2; therefore, the fugitive PM emissions are counted toward determination of PSD applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	greater than 100
PM-10	greater than 100
SO_2	greater than 100
VOC	greater than 100
CO	greater than 100
NOx	less than 100

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.

(b) These emissions are based upon the Part 70 permit #005-6001-00006 issued on April 12, 2002.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)								
Process/facility	PM	PM10	SO_2	VOC	CO	NO_X	lead	beryllium	HAPs
new core machines	0	0	0	5.60	0	0	0	0	3.5
increased utilization of other existing foundry processes	20.49	14.99	39.9	34.3	99.9	39.9	0.59	0.00039	0.1
total for this modification	20.49	14.99	39.9	39.9	99.9	39.9	0.59	0.00039	3.6
PSD Significance levels	25	15	40	40	100	40	0.6	0.0004	

This modification to an existing major stationary source is not major because the emissions increase is limited to less than the PSD significant levels. The source has accepted limits on the amount of PM, PM10, VOC, SO_2, CO, lead, and beryllium emitted in order to render PSD not applicable. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply. For detailed calculations, please refer to Appendix A.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable to this modification, the following conditions shall apply:

(a) The resin usage for core machines EU217 and EU218 (combined) shall not exceed 84,000 pounds of resin per 12 consecutive month period. TEA usage for core machines EU217 and EU218 (combined) shall not exceed 7,000 pounds of TEA per 12 consecutive month period.

(b) The VOC emissions (not including TEA) from each of the Isocure core machines EU217 and EU218 shall not exceed 0.05 pounds per pound of resin.

(c) The TEA emissions from each of the Isocure core machines EU217 and EU218 shall not exceed 2.0 pounds per ton of cores.

(d) The amount of castings produced using cores made by the core machines EU217 and EU218 shall not exceed 4,000 tons per 12 consecutive month period.

(e) The amount of sand used to produce the castings produced using cores made by the core machines EU217 and EU218 shall not exceed 40,000 tons per 12 consecutive month period.

(f) The charging, melting, pouring, cooling, shakeout, sand handling, and finishing processes shall comply with the limits as shown in the table below:

Facility	PM limit (lb/ton)	PM10 limit (lb/ton)	SO_2 limit (lb/ton)	VOC limit (lb/ton)	CO limit (lb/ton)	NOx limit (lb/ton)	lead limit (lb/ton)	beryllium limit (lb/ton)
scrap and charge handling	0.60	0.36	-	-	-	-	0.0023	-
cupola melt furnace	1.000	0.899	19.93	15.81	49.95	19.94	0.260	0.000195
Moldmaster and Stationmaster pouring	4.20	2.06	-	0.14	-	0.01	0.0162	-
Moldmaster and Stationmaster cooling	1.40	1.40	-	-	-	-	-	-
Moldmaster and Stationmaster shakeout	0.500	0.500	-	1.20	-	-	0.0123	-
Moldmaster and Stationmaster sand handling	0.200	0.200	-	-	-	-	-	-
BMD shotblast and the N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast Shotblast machines	0.230	0.230	-	-	-	-	0.0045	-
core sand handling	0.36	0.054	-	-	-	-	-	-

Notes: The limits for the scrap and charge handling, cupola melt furnace, pouring, cooling, shakeout, and finishing processes are in pounds per ton of metal throughput. The limits for the sand handling and core sand handling processes are in pounds per ton of sand throughput.

326 IAC 2-4.1-1 (HAPs Major Sources: New Source Toxics Control)

This proposed project is potentially subject to the New Source Toxics Control rule which requires a constructed or reconstructed major source of HAPs to control emissions consistent with MACT. Because there is no established NESHAP for grey iron foundries, this source would be required to make the MACT determination on a case-by-case basis. The requirements of this rule are consistent with the final federal rule implementing Section 112(g)(2)(B) of the Clean Air Act.

In order to render the requirements of PSD not applicable to this modification, the VOC emissions from the two new core machines have been limited to a combined total of 5.60 tons per year. Since the only HAPs emitted from the core machines are organic HAPs (VOC), this limit will effectively limit HAPs emissions from the two new core machines to less than 5.60 tons per year. This is less than 10 tons per year for any single HAP and less than 25 tons per year for any combination of HAPs. Therefore, this limit is also sufficient to render the requirements of 326 IAC 2-4.1-1 (HAPs Major Sources: New Source Toxics Control) not applicable to the two new core machines.

The other existing facilities at the source have the potential to emit HAPs in excess of 10 tons per year for a single HAP and 25 tons per year for a combination of HAPs. The installation of the new core machines will increase utilization of the other processes, but no physical modifications are being made to these other processes. Since these other facilities are not being constructed or reconstructed, this modification does not trigger the applicability of 326 IAC 2-4.1-1 (HAPs Major Sources: New Source Toxics Control) for the existing facilities.

326 IAC 8-1-6 (BACT)

This rule applies to facilities constructed after January 1, 1980 which have the potential to emit 25 tons per year or more of VOC. In order to render the requirements of PSD not applicable to this modification, the VOC emissions from the two new core machines have been limited to a combined total of 5.60 tons per year. This limit is also sufficient to render the requirements of 326 IAC 8-1-6 (BACT) not applicable to the two new core machines. NO other 326 IAC 8 rules apply to these new core machines.

Since no physical modifications are being made to any of the existing facilities at the plant (i.e. facilities involving the melting, pouring, cooling, shakeout, sand handling, or finishing operations), the applicability of 326 IAC 8-1-6 (BACT) to any of these facilities does not need to be evaluated during this review. No other 326 IAC 8 rules apply to any of these facilities as a result of this modification.

326 IAC 6-3-2 (Process Operations)

This rule applies to processes that emit particulate matter. The two new core machines do not emit particulate matter; therefore the requirements of 326 IAC 6-3-2 (Process Operations) do not apply to the two new core machines.

This rule does apply to the other existing facilities at the plant; however, the installation of the two new core machines does not change the applicability of this rule as it is already stated in the Part 70 permit for this source, which was issued on April 12, 2002. There have been no changes to the permit limits pursuant to 326 IAC 6-3-2 (Process Operations) for any facilities at this plant, as a result of this modification.

326 IAC 9-1 (CO Emissions)

This rule does apply to the existing cupola furnace; however the installation of the two new core machines does not change the applicability of this rule as it is already stated in the Part 70 permit for this source, which was issued on April 12, 2002.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are

found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

1. The two core machines EU217 and EU218 have applicable compliance monitoring conditions as specified below:

   (a) To document compliance with the TEA and resin usage limits, the Permittee shall maintain records of the TEA and resin usages for each of the new core machines each month. A quarterly report of this information shall be submitted to IDEM, OAQ.

   (b) To document compliance with the VOC emission limit for the core machines, the Permittee shall maintain records of the VOC content of the binders used for each of the new Isocure core machines each month.

2. The other existing facilities already have some compliance monitoring conditions established in the Part 70 permit. The compliance monitoring conditions regarding the baghouses and rotoclones are sufficient to ensure proper operation of these control devices; therefore, no changes are being made to these compliance monitoring conditions as a result of this permit. Some additional compliance monitoring conditions are necessary to ensure compliance with some of the new emission limits for some of the existing facilities. The new compliance monitoring requirements for the existing facilities are listed below.

   (a) The Permittee shall continuously record the operating temperature of the cupola gas stream when the cupola is in operation. Whenever the temperature is below 1400 degrees Fahrenheit or a minimum temperature established during the latest OAQ approved stack test, the Permittee shall take reasonable response steps in according with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A temperature reading that is below the minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

   The instrument used for determining the temperature shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of the permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

   (b) To document compliance with the metal throughput limit, the Permittee shall maintain records of the amount of castings produced using cores produced by core machines EU217 and EU218. A quarterly report of this information shall be submitted to IDEM, OAQ.

   (c) To document compliance with the sand throughput limit, the Permittee shall maintain records of the amount of sand used to produce castings made using cores produced by core machines EU217 and EU218. A quarterly report of this information shall be submitted to IDEM, OAQ.

(d) To document that these new metal castings are produced using only the Moldmaster or Stationmaster mold lines and only the BMD, N. Tumble Blast, S. Tumble Blast, or M. Tumble Blast Shotblast machines, the source shall keep records of the throughput of castings using cores made from core machines EU217 and EU218 to each of the following individual emission units:

(1) Moldmaster pouring,
(2) Moldmaster cooling,
(3) Moldmaster shakeout processes,
(4) Stationmaster pouring,
(5) Stationmaster cooling,
(6) Stationmaster shakeout,
(7) the BMD blast,
(8) the N. Tumble Blast shotblast machine,
(9) the S. Tumble Blast shotblast machine, and
(10) the M. Tumble Blast shotblast machine.

(e) To demonstrate compliance with the emission limits in this permit, stack testing shall be performed for PM10, CO, lead, and beryllium from the cupola melt furnace, and for PM and PM10 from baghouse BH15 controlling the Stationmaster shakeout and sand handling processes. These tests shall be performed within 180 days after startup of the new core machines EU217 and EU218.

These monitoring conditions are necessary in order to ensure compliance with the limits to render PSD not applicable.

Changes to the Part 70 Permit

Changes to the Part 70 permit as a result of this modification as shown below. Deleted text is shown with a line through it and new text is shown in bold.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(q) Core making operations consisting of the following:

(17) **One (1) CB-25 cold box core machine identified as EU-217 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-2, with emissions exhausting through stack SB-2. Core sand and resin will be supplied by the existing mixer identified as the B&P Mixer System I & II.**

(18) **One (1) CB-25 cold box core machine identified as EU-218 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-3, with emissions exhausting through stack SB-3. Core sand and resin will be supplied by the existing mixer identified as the Palmer Continuous Mixer.**

(19)~~(17)~~ One (1) core sand handling system, constructed in 1997 with a maximum capacity of 123 tons of sand per hour with particulate emissions controlled by a cartridge filter and exhausting through stack SB-1.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] The scrap and charge handling process, constructed prior to 1968, identified as 103 with a maximum capacity of 22 tons of metal per hour with emissions uncontrolled.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.2 Particulate Matter (PM and PM10) and Lead Emissions [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply to the scrap and charge handling process:

(a) The PM emissions shall not exceed 0.60 pounds per ton of metal charged to the cupola.

(b) The PM10 emissions shall not exceed 0.36 pounds per ton of metal charged to the cupola.

(c) The lead emissions shall not exceed 0.0023 pound per ton of metal charged to the cupola.

Therefore the requirements of 326 IAC 2-2 and 40 CFR 52.21 shall not apply.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) cupola, identified as 101, constructed prior to 1968 with a maximum capacity of 22 tons of metal per hour with emissions controlled by a baghouse, BH-3, and an afterburner, AB-1, exhausting through stack SC-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.2 ~~Cupola Maximum Capacity~~ **Prevention of Significant Deterioration (PSD) [326 IAC 2-2]**

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply to the cupola melt furnace:

(a) The PM emissions shall not exceed 1.000 pounds per ton of metal.

(b) The PM10 emissions shall not exceed 0.899 pounds per ton of metal.

(c) The SO_2 emissions shall not exceed 19.93 pounds per ton of metal.

(d) The CO emissions shall not exceed 49.95 pounds per ton of metal.

(e) The NOx emissions shall not exceed 19.94 pounds per ton of metal.

(f) The VOC emissions shall not exceed 15.81 pounds per ton of metal.

(g) The lead emissions shall not exceed 0.260 pounds per ton of metal.

(h) The beryllium emissions shall not exceed 0.000195 pounds per ton of metal.

(i) The amount of metal melted in the cupola in order to produce castings using the cores produced by core machines EU217 and EU218 shall not exceed 4,000 tons per 12 consecutive month period.

(j) The maximum melt rate of the cupola (101) shall not exceed 22 tons of metal per hour. Any change or modification to this unit that would increase the capacity of the unit will need prior approval from IDEM.

Therefore the requirements of 326 IAC 2-2 and 40 CFR 52.21 shall not apply.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

(a) Within 180 days after issuance of this permit, the Permittee shall perform PM testing on the cupola (101) using methods as approved by the Commissioner, in order to demonstrate compliance with Conditions D.2.1 and D.2.2. These tests shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) Within 60 days after the two core machines EU217 and EU218 achieve maximum capacity but no later than 180 days after startup of the two core machines EU217 and EU218, the Permittee shall perform PM10, CO, lead, and beryllium testing on the cupola (101) using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.2.2. These tests shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.2.5 Control Equipment [326 IAC 9-1]

(a) In order to comply with the requirements of Conditions D.2.1, the baghouse BH-3 for PM and PM10 control shall be in operation at all times when the cupola is in operation and during startup of the cupola.

(b) Pursuant to 326 IAC 9-1 (CO Emissions) **and in order to comply with the requirements of Condition D.2.2**, the afterburner AB-1 shall be in operation at all times when the cupola (101) is in operation.

D.2.10 Cupola Gas Stream Temperature

The Permittee shall continuously record the operating temperature of the cupola gas stream when the cupola is in operation. Whenever the temperature is below 1400 degrees Fahrenheit or a minimum temperature established during the latest OAQ approved stack test, the Permittee shall take reasonable response steps in according with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A temperature reading that is below the minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the temperature shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of the permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.~~10~~**11** Record Keeping Requirements

(a) In order to document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the cupola stack exhaust(s), cupola cap, and cupola charge door once per shift.

(b) In order to document compliance with condition D.2.7, the Permittee shall maintain records of the inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere.

(c) In order to document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8 and the dates the vents are redirected.

(d) **In order to document compliance with Condition D.2.10, the Permittee shall maintain records of the temperature of the cupola gas stream.**

(e) In order to document compliance with Condition D.2.2(i), the Permittee shall maintain records of the metal melted to produce castings using the cores produced by core machines EU217 and EU218.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.2(i) shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(a) Moldmaster pouring process, identified as 315, constructed in 1962 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by a baghouse, BH16, exhausting through stack SC-5.

(b) Moldmaster cooling process, identified as 316 and 317, constructed in 1964 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by two (2) baghouses, BH-12 and BH-13, exhausting through stacks SC7A and SC7B.

(c) Moldmaster casting shakeout process, identified as 318 and 320, constructed in 1964 with a maximum capacity of 18 tons of metal per hour and 105 tons of sand per hour with emissions controlled by one (1) baghouse, BH-1, exhausting through stack SC9.

(d) Moldmaster sand system and muller, identified as 311 and 313, constructed in 1962 with a maximum capacity of 105 tons of sand per hour with emissions controlled by one (1) rotoclone, RC-1, exhausting through stack SC-6.

(e) Stationmaster pouring process, identified as 342, constructed before 1977 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with emissions uncontrolled and exhausting internally.

(f) Stationmaster cooling process, identified as 343, constructed before 1977 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with emissions uncontrolled and exhausting internally.

(g) Stationmaster casting shakeout process, identified as 344, constructed in 1994 with a maximum capacity of 7 tons of metal per hour and 40 tons of sand per hour with emissions controlled by one (1) baghouse, BH-15, exhausting through stack SC-12.

(h) Stationmaster sand system and muller, identified as 341, constructed before 1977 with a maximum capacity of 40 tons of sand per hour with emissions controlled by one (1) baghouse, BH-15, exhausting through stack SC-12.

(i) Slinger pouring process, identified as 374, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(j) Slinger cooling process, identified as 375, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(k) Slinger casting knockout process, identified as 376, constructed before 1968 with a maximum capacity of 2 tons of metal per hour and 8 tons of sand per hour and emissions controlled by a rotoclone, RC-2, exhausting through stack SC-24.

(l) Slinger sand system and muller, identified as 371, 372, and 373, constructed before 1968 with a maximum capacity of 8 tons of sand per hour with emissions controlled by one (1) rotoclone, RC-2, exhausting through stack SC-24.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.2 Particulate Matter (PM) **and Lead Emissions** [326 IAC 2-2]

(a) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the Stationmaster casting shakeout system, the following conditions shall apply:

~~(a)~~ **(1)** The PM emissions from the baghouse BH15 controlling the Stationmaster casting shakeout and sand handling process and the shall not exceed 5.48 pounds per hour.

~~(b)~~ **(2)** The PM-10 emissions from the baghouse BH15 controlling the Stationmaster casting shakeout and sand handling process shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

(b) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply:

(1) The PM emissions from the Moldmaster pouring and Stationmaster pouring shall not exceed 4.20 pounds per ton of metal.

(2) The PM10 emissions from the Moldmaster pouring and Stationmaster pouring shall not exceed 2.06 pounds per ton of metal.

(3) The lead emissions from the Moldmaster pouring and Stationmaster pouring shall not exceed 0.0162 pounds per ton of metal.

(4) The PM emissions from the Moldmaster cooling and Stationmaster cooling shall not exceed 1.40 pounds per ton of metal.

(5) The PM10 emissions from the Moldmaster cooling and Stationmaster cooling, shall not exceed 1.40 pounds per ton of metal.

(6) The PM emissions from the Moldmaster shakeout and Stationmaster shakeout shall not exceed 0.500 pounds per ton of metal.

(7) The PM10 emissions from the Moldmaster shakeout and Stationmaster shakeout shall not exceed 0.500 pounds per ton of metal.

(8) The lead emissions from the Moldmaster shakeout and Stationmaster shakeout shall not exceed 0.0123 pounds per ton of metal.

(9) The PM emissions from the Moldmaster sand system and muller and Stationmaster sand system and muller shall not exceed 0.200 pounds per ton of metal.

(10) The PM10 emissions from the Moldmaster sand system and muller and Stationmaster sand system and muller shall not exceed 0.200 pounds per ton of metal.

(11) The mold sand used to produce castings using the cores produced by core machines EU217 and EU218 shall not exceed 40,000 tons per 12 consecutive month period

(12) The metal castings produced using cores made from core machines EU217 and EU218 shall be produced using only the Moldmaster or Stationmaster mold lines.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 60 days after the two core machines EU217 and EU218 achieve maximum capacity but no later than 180 days after startup of the two core machines EU217 and EU218, ~~Within 24 months after issuance of this permit,~~ the Permittee shall perform PM and PM10 testing on the baghouse BH15 controlling the Stationmaster shakeout and sand handling processes, using methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.3.1 and D.3.2. PM10 includes filterable and condensible PM10. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.10 Record Keeping Requirements

(a) In order to document compliance with Condition D.3.6, the Permittee shall maintain records of visible emission notations of all the controlled stack exhausts once per shift.

(b) In order to document compliance with condition D.3.7, the Permittee shall maintain records of the inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere.

(c) In order to document compliance with Condition D.3.8, the Permittee shall maintain records of the results of the inspections required under Condition D.3.8 and the dates the vents are redirected.

(d) **In order to document compliance with Condition D.3.2(b)(11), the Permittee shall maintain records of the mold sand used to produce castings using the cores produced by core machines EU217 and EU218.**

(e) To document compliance with Condition D.3.2(b)(12), the source shall keep records of the throughput of castings using cores made from core machines EU217 and EU218 to each of the following individual emission units:

(1) Moldmaster pouring,
(2) Moldmaster cooling,
(3) Moldmaster shakeout processes,
(4) Stationmaster pouring,
(5) Stationmaster cooling, and
(6) Stationmaster shakeout.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.2(b)(11) and (12) shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(a) Shotblasting operations consisting of the following:

(1) BMD Blast, identified as 450, to be constructed in 2001, with a maximum capacity of 30 tons of metal per hour with emissions controlled by baghouse BH-10, exhausting through stack SC-22.

(2) N. Tumble Blast, identified as 443-1, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-7, exhausting through stack SC-19A.

(3) M. Tumble Blast, identified as 443-2, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-8, exhausting through stack SC-19B.

(4) S. Tumble Blast, identified as 443-3, constructed before 1968 with a maximum capacity of 7 tons of metal per hour with emissions controlled by a baghouse, BH-6, exhausting through stack SC-19C.

(5) 42 Blast, identified as 442, constructed before 1977 with a maximum capacity of 18 tons of metal per hour with emissions controlled by a baghouse, BH-14, exhausting through stack SC-18.

(6) North Pangborn Blast, identified as 444, constructed before 1968 with a maximum capacity of 7.5 tons of metal per hour with emissions controlled by a baghouse, BH-11, exhausting through stack SC-20.

(b) Grinding operations consisting of the following:

(1) Head cleaning and stand grinders, identified as 447, constructed before 1977 with a maximum capacity of 14 tons of metal per hour total with emissions controlled by one (1) baghouse, BH-5, exhausting through stack SC-16.

(2) Two (2) Block grinders, identified as 441, constructed in 1986 with a maximum capacity of 16 tons of metal per hour total with emissions controlled by one (1) baghouse, BH-4, exhausting through stack SC-17.

(3) Swing grinder, identified as 446, constructed before 1977 with a maximum capacity of 15 tons of metal per hour with emissions controlled by one (1) baghouse, BH-4, exhausting through stack SC-17.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.2 Particulate Matter (PM) [326 IAC 2-2]

(a) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the BMD Blast shotblast machine and the grinders, the following conditions shall apply:

~~(a)~~ **(1)** Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, the PM emissions from the baghouse BH10 controlling the BMD Blast

shotblast machine shall not exceed 5.48 pounds per hour.

~~(b)~~ **(2)** Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, the PM10 emissions from the baghouse BH10 controlling the BMD Blast shotblast machine shall not exceed 3.19 pounds per hour.

~~(c)~~ **(3)** The PM emissions from the baghouse BH5 controlling the head cleaning and stand grinders shall not exceed 5.25 pounds per hour.

~~(d)~~ **(4)** The PM emissions from the baghouse BH4 controlling the two (2) block grinders shall not exceed 0.23 pound per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

(b) In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the two core machines EU217 and EU218, the following conditions shall apply to the BMD and the N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast shotblast machines:

(1) The PM emissions from each of the BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast shotblast machines shall not exceed 0.230 pounds per ton of castings finished.

(2) The PM10 emissions from each of the BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast shotblast machines shall not exceed 0.230 pounds per ton of castings finished.

(3) The lead emissions from each of the BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast shotblast machines shall not exceed 0.0045 pounds per ton of castings finished.

(4) The metal castings produced using cores made from core machines EU217 and EU218 shall be produced using only the BMD, N. Tumble Blast, S. Tumble Blast, and M. Tumble Blast shotblast machines.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.11 Record Keeping Requirements

(a) In order to document compliance with Condition D.4.7, the Permittee shall maintain records of visible emission notations of all of the controlled stack exhausts once per shift.

(b) In order to document compliance with condition D.4.8, the Permittee shall maintain records of the inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere.

(c) In order to document compliance with Condition D.4.9, the Permittee shall maintain records of the results of the inspections required under Condition D.4.9 and the dates the vents are redirected.

(d) Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, and to document compliance with D.4.3(b), records shall be kept of the weight of casting throughput to shotblast machine 450.

~~(d)~~**(e) To document compliance with Condition D.4.2(b)(4), the source shall keep records of the throughput of castings using cores made from core machines EU217 and EU218 to each of the following individual emission units:**

(1) the BMD blast;
(2) the N. Tumble Blast shotblast machine;
(3) the M. Tumble Blast shotblast machine; and
(4) the S. Tumble Blast shotblast machine.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.12 Reporting Requirements

Pursuant to Significant Source Modification 005-11795-00006 issued August 29, 2000, a quarterly summary of the information to document compliance with Conditions **D.4.2(b)(4) and** D.4.3 shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
Core making operations consisting of the following:

(a) Four (4) 4-103 Isocure core machines, identified as 201, constructed in 1976 with a maximum capacity of 6 tons of cores per hour total with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. These core machines are supplied by the B&P mixer.

(b) One (1) 4-101 Cold Box core machine, identified as 202, constructed in 1986 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. This core machine is supplied by the B&P mixer.

(c) One (1) 315 D Cold Box core machine, identified as 203, constructed in 1986 with a maximum capacity of 1 ton of cores per hour total with emissions controlled by a scrubber, SB-4, exhausting through stack SB-4. This core machine uses a manual mixer.

(d) Two (2) EB-2 Cold Box core machines, identified as 204, constructed in 1993 with a maximum capacity of 2 tons of cores per hour total with emissions controlled by a scrubber, SB-2, exhausting through stack SB-2. These core machines are supplied by the B&P mixer.

(e) One (1) 4-102 Isocure core machine, identified as 205, constructed prior to 1977 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-4, exhausting through stack SB-4. This core machine uses a manual mixer.

(f) One (1) 4-103 Isocure core machine, identified as 206, constructed prior to 1977 with a maximum capacity of 1.5 ton of cores per hour with emissions controlled by a scrubber, SB-3, exhausting through stack SB-3. This core machine is supplied by an auger mixer.

(g) One (1) Insta Draw Isocure core machine, identified as 207, constructed prior to 1977 with a maximum capacity of 1 ton of cores per hour with emissions controlled by a scrubber, SB-5, exhausting through stack SB-5.

(h) One (1) Pepset core system, identified as 208, constructed prior to 1970 with a maximum capacity of 2 tons of cores per hour with emissions uncontrolled exhausting through stack SU-14.

(i) One (1) Airset core system, identified as 209, constructed prior to 1977 with a maximum capacity of 2 tons of cores per hour with emissions uncontrolled exhausting through stack SU-15.

(j) One (1) Sutter core machine, identified as 210, constructed before 1977 with a maximum capacity of 1 tons of cores per hour with emissions uncontrolled exhausting internally.

(k) Three (3) Demler core machines, all three identified as 211, constructed before 1977 with a maximum capacity of 2 tons of cores per hour total with emissions uncontrolled exhausting internally.

(l) Three (3) Shalco core machines, identified as 213, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(m) One (1) core machine, identified as 214, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(n) Two (2) MC5 core machines, identified as 215, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(o) One (1) Shell core machine, identified as 216, constructed before 1977 with a maximum capacity of 1 ton of cores per hour with emissions uncontrolled exhausting internally.

(p) One (1) CB-25 cold box core machine identified as EU-217 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-2, with emissions exhausting through stack SB-2. Core sand and resin will be supplied by the existing mixer identified as the B&P Mixer System I & II.

(q) One (1) CB-25 cold box core machine identified as EU-218 with a maximum capacity of 1 ton of cores per hour, with TEA emissions controlled by an existing TEA scrubber identified as SB-3, with emissions exhausting through stack SB-3. Core sand and resin will be supplied by the existing mixer identified as the Palmer Continuous Mixer.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-2]

In order to render the requirements of 326 IAC 8-1-6 (BACT), 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

(a) The resin usage for core machines 202 and 203 combined (two machines total) shall not exceed 373,500 pounds per twelve consecutive month period. TEA usage for core machines 202 and 203 combined (two machines total) shall not exceed 31,125 pounds per twelve consecutive month period.

(b) The resin usage for core machines 204 combined (two machines) shall not exceed 373,500 pounds per twelve consecutive month period. TEA usage for core machines 204 combined (two machines) shall not exceed 31,125 pounds per twelve consecutive month period.

(c) The VOC emissions (not including TEA) from each of the cold box core machines identified as emission units 202, 203, ~~and~~ 204**, EU217, and EU218** shall not exceed 0.05 pounds per pound of resin.

(d) The TEA emissions from each of the cold box core machines identified as emission units 202, 203, ~~and~~ 204**, EU217, and EU218** shall not exceed 2.0 pounds per ton of cores.

(e) The combined resin usage for core machines EU217 and EU218 shall not exceed 84,000 pounds per twelve consecutive month period. TEA usage for core machines EU217 and EU218 combined shall not exceed 7,000 pounds per twelve consecutive month period.

Therefore, the requirements of 326 IAC 8-1-6 (BACT) shall not apply. Compliance with above limits will also render the requirements of 326 IAC 2-2 and 40 CFR 52.21 not applicable.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.2 Record Keeping Requirements

(a) In order to document compliance with Conditions D.5.1 (a) and (b), the Permittee shall maintain records of the amount of TEA and resin usage for each of the core machines identified as 202, 203, ~~and~~ 204**, EU217, and EU218**.

(b) To document compliance with Condition D.5.1 (c), the Permittee shall maintain records of the VOC content of the binders used for all of the Isocure core machines each month.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.3 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.5.1 (a)**,** ~~and~~ (b)**, and (e)** shall be submitted to the address in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]
Coremaking operations consisting of the following:

(1) Two (2) Isocure core machines and sand handling system, identified as 200, constructed in 1997 and 1998 with a maximum capacity of 12.3 tons of cores per hour with emissions controlled by an acid scrubber, SB-1, for VOC control and a bin vent filter for particulate control exhausting through stack SB-1.

(2) One (1) core sand handling system, constructed in 1997 with a maximum capacity of 123 tons of sand per hour with particulate emissions controlled by a bin vent filter and exhausting through stack SB-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.2 Particulate Matter [326 IAC 2-2]

Pursuant to CP005-7081, issued on March 12, 1997, in order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable to the core sand handling process **and the core machines EU217 and EU218**, the following conditions shall apply:

(1) The PM emissions from the bin vent filter controlling the core sand handling process shall not exceed 5.48 pounds per hour **and 0.36 pound per ton of sand**.

(2) The PM10 emissions from the bin vent filter controlling the core sand handling process shall not exceed 3.20 pounds per hour **and 0.054 pound per ton of sand**.

(3) The outlet grain loading from the bin vent filter controlling the core sand handling process shall not exceed 0.03 grains per dry standard cubic foot of exhaust air.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

Additionally, new reporting forms have been added to the permit for reporting the actual throughput of metal to the cupola, sand to the sand system, and TEA and resin usage for the new core machines EU217 and EU218.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 005-15288-00006 and Part 70 Significant Permit Modification No. 005-15520-00006.

GOLDEN CASTING CORPORATION

Company Name: Golden Casting Corp.
Plant Location: Columbus, Indiana
County: Bartholomew
Permit Reviewer: Nisha Sizemore
Permit #: 005-15288-00006

							Emission Factor									Uncontrolled PTE (tons/year)							Allowable Emissions (tons/year)							
SOURCE		**PWR limit**	**Controlled**	**Proposed Limit**											Source														Baghouse
	Capacity	lbs/hr	lb/ton	lb/ton	Usage	Units	VOC	SO2	NOX	CO	PM	PM10	lead	Units	(See notes)	VOC	SO2	NOX	CO	PM	PM10	lead	VOC	SO2	NOX	CO**	PM	PM10	lead	Efficiency*
Cupola *	22.00	38.40	1.00		4,000	TMC/yr	0.18	1.25	0.10	145.00	13.80	12.40	0.03174	lb/TMC	(1)	0.36	2.50	0.20	290.00	27.60	24.80	0.063	31.62	39.86	39.88	99.90	2.00	1.80		93%
Charge Handling					4,000	TMC/Yr	0.00	0.00	0.00	0.00	0.60	0.36	0.00230	lb/TMC	(1)	0.00	0.00	0.00	0.00	1.20	0.72	0.005	0.00	0.00	0.00	0.00	1.20	0.72		na
sand system	105.00	51.80	0.49	0.20	40,000	TS/Yr	0.00	0.00	0.00	0.00	3.60	0.54	0.00000	lb/TS	(1)	0.00	0.00	0.00	0.00	72.00	10.80	0.000	0.00	0.00	0.00	0.00	4.00	4.00		94%
pouring	18.00	53.40	2.97		4,000	TMP/yr	0.14	0.02	0.01	0.00	4.200	2.060	0.01617	lb/TMP	(1)	0.28	0.04	0.02	0.00	8.40	4.12	0.032	0.28	0.04	0.02	0.00	8.40	4.12		0%
cooling	18.00	53.40	2.97		4,000	TMP/Yr	0.00	0.00	0.00	0.00	1.400	1.400	0.00000	lb/TMP	(1)	0.00	0.00	0.00	0.00	2.80	2.80	0.000	0.00	0.00	0.00	0.00	2.80	2.80		0%
shakeout	18.00	53.40	2.97	0.50	4,000	TMP/yr	1.20	0.00	0.00	0.00	3.200	2.240	0.01232	lb/TMP	(1)	2.40	0.00	0.00	0.00	6.40	4.48	0.025	2.40	0.00	0.00	0.00	1.00	1.00		84%
shotblasting	37	5.48	0.15	0.23	4,000	TMC/Yr	0.00	0.00	0.00	0.00	17.00	1.70	0.00450	lb/TMC	(1)	0.00	0.00	0.00	0.00	34.00	3.40	0.009	0.00	0.00	0.00	0.00	0.46	0.46		99%
core sand system					3,500	TC/yr					3.60	0.54	0.00	lb/TS	(1)					6.30	0.95	0.00					0.63	0.09		90%
new Core machines					3,500	TC/year	3.20							lbs/tC	See page2	5.60							5.60							
TOTALS																8.64	2.54	0.22	290.00	158.70	52.07	0.13	39.90	39.90	39.90	99.90	20.49	14.99		

Metal production					4,000	TM/year
Sand					40,000	TS/year

2000.00 lbs greensand

200

*Baghouse efficiencies are obtained from Title V permit

**Cupola is controlled by afterburner

85% efficiency (from Title V permit - TSD)

21.75

(1) AP-42 12.10

				Limits (lb/ton)				
	VOC	SO2	NOX	CO	PM	PM10	lead	Units
Cupola *	15.810	19.930	19.940	49.950	1.000	0.899	0.25971	lb/TMC
Charge Handling	0.00	0.00	0.00	0.00	0.60	0.36	0.00230	lb/TMC
sand system	0.00	0.00	0.00	0.00	0.200	0.200	0.00000	lb/TS
pouring	0.14	0.02	0.01	0.00	4.20	2.06	0.01617	lb/TMP
cooling	0.00	0.00	0.00	0.00	1.40	1.40	0.00000	lb/TMP
shakeout	1.20	0.00	0.00	0.00	0.500	0.500	0.01232	lb/TMP
shotblasting	0.00	0.00	0.00	0.00	0.230	0.230	0.00450	lb/TMC
core sand system	0.00	0.00	0.00	0.00	0.360	0.054	0.00000	lb/TS
new Core machines	3.20	0.00	0.00	0.00	0.00	0.00	0.00000	lbs/tC

Appendix A: Emission Calculations

Company: Golden Casting Corporation
Location: 1616 Tenth Street, Columbus, IN 47201
Permit Number: 005-15288-00006

Isocure Core Making Process

Machine	Capacity (tons cores/hr)	VOC Emission Factor from Resin Evaporation (lb/ton cores)	Max TEA Usage (lb TEA/ton cores)	Potential VOC Emissions from resin evap (tons/yr)	Potential TEA Emissions from TEA usage (tons/yr)	Total Potential VOC Emissions (tons/yr)
EU217	1	1.2	2.0	5.256	8.76	14.02
EU218	1	1.2	2.0	5.256	8.76	14.02
Total						38.43

OCMA study shows an emission factor of 0.65 lb/ton of cores for VOC emissions from resin evaporation, based on 1% resin usage.
The calculations for this source use an emission factor of 1.2 lb/ton of cores for VOC emissions from resin evaporation, in order to provide a conservative estimate. These machines have a maximum resin usage rate of 1.2%.

Limits Necessary to render 326 IAC 8-1-6 (BACT) not applicable:

Core Machines	VOC limit (tons/yr)	VOC EF for resin evaporation (lb/ton cores)	VOC EF for resin evaporation (lb VOC/lb resin)	TEA EF (lb/ton cores)	core production (tons cores/yr)	TEA usage limit (lbs/yr)	resin usage limit (lbs/yr)
EU217	10.93	1.2	0.05	2.0	1,750	3,500	42,000
EU218	10.93	1.2	0.05	2.0	1,750	3,500	42,000
Total	21.86				3,500	7,000	84,000

With a production limit of 3,500 tons/yr
VOC emissions will be:

Machine	Production Limit (tons cores/yr)	VOC Emission Factor from Resin Evaporation (lb/ton cores)	Max TEA Usage (lb TEA/ton cores)	Limited VOC Emissions from resin evap (tons/yr)	Limited TEA Emissions from TEA usage (tons/yr)	Total Limited VOC Emissions (tons/yr)
EU217 & EU218	3,500	1.2	2.0	2.1	3.50	5.60

Other HAPs Emissions from core machines

Core machines	**Limited Core Production (tons/yr)**	**Pollutant**	**% of Part I released**	**% of Part II released**	**Emissions (tons/yr)**
EU217 & EU218	4000	formaldehyde	2%		0.53
		phenol	0%		0.00
	Part I usage	xylene	3.25%	3.25%	1.58
	(lb/ton cores)	cumene	3.25%		0.87
	13.36	naphthalene	3.25%	3.25%	1.58
		biphenyl		3.25%	0.71
	Part II usage	Total HAPs			5.27
	(lb/ton cores)				
	10.93				

HAPs Emissions
from increased utilization

Appendix A: Emission Calculations

Company Name: Golden Casting Corporation
Plant Location: 1616 Tenth Street, Columbus, IN 47201
County: Bartholomew
Permit Reviewer: Nisha Sizemore
Permit #: 005-15288
Plt. ID #: 005-00006

* * Process Emissions * *

Process:	Rate (tons iron/yr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Scrap and Charge	4000	chromium	0.00023	0.00046	0.00046		
Handling		cobalt	0.00002	0.00004	0.00004		
SCC# 3-04-003-15		nickel	0.00040	0.00080	0.00080		
AP-42 Ch. 12.10		arsenic	0.00008	0.00016	0.00016		
		cadmium	0.00004	0.00008	0.00008		
		selenium	0.00001	0.00002	0.00002		
		Lead	0.00230	0.00460	0.00460		

Process:	Rate (tons iron/yr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Cupola	4000	chromium	0.00718	0.01436	0.00101	baghouse	93.00%
		cobalt	0.00055	0.00110	0.00008	baghouse	93.00%
		nickel	0.00483	0.00966	0.00068	baghouse	93.00%
		arsenic	0.00179	0.00358	0.00025	baghouse	93.00%
EPA SCC# 3-04-003-01		cadmium	0.00000	0.00000	0.00000	baghouse	93.00%
AP-42 Ch. 12.10		selenium	0.00028	0.00056	0.00004	baghouse	93.00%
		Lead	0.03174	0.06348	0.00444	baghouse	93.00%
		phenol	0.01152	0.02304	0.00346	afterburner	85.00%
		benzene	0.06246	0.12492	0.01874	afterburner	85.00%
		formaldehyde	0.00126	0.00252	0.00038	afterburner	85.00%
		xylene	0.02160	0.04320	0.00648	afterburner	85.00%
		toluene	0.02538	0.05076	0.00761	afterburner	85.00%
		beryllium	0.000195	0.00039	0.00039	baghouse	
		Total HAPs		0.33757	0.04355		

Golden Casting Corporation
1616 Tenth Street, Columbus, IN 47201

Permit # 005-15288
Plt ID 005-00006

Process:	Rate (tons iron/yr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Pouring/Casting	4000	chromium	0.00160	0.00320	0.00320		
SCC# 3-04-003-18		cobalt	0.00013	0.00026	0.00026		
		nickel	0.00281	0.00562	0.00562		
		arsenic	0.00055	0.00110	0.00110		
		cadmium	0.00025	0.00050	0.00050		
		selenium	0.00004	0.00008	0.00008		
		Lead	0.01617	0.03234	0.03234		
		Total HAPs		0.04310	0.04310		

Process:	Rate (tons iron/yr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings Shakeout	4000	chromium	0.00122	0.00244	0.00039	baghouse	84.0%
SCC# 3-04-003-31		cobalt	0.00010	0.00020	0.00003	baghouse	84.0%
AP-42 Ch. 12.10		nickel	0.00214	0.00428	0.00068	baghouse	84.0%
		arsenic	0.00042	0.00084	0.00013	baghouse	84.0%
		cadmium	0.00019	0.00038	0.00006	baghouse	84.0%
		selenium	0.00003	0.00006	0.00001	baghouse	84.0%
		Lead	0.01232	0.02464	0.00394	baghouse	84.0%
	Rate (lbs seacoal/yr)		Ef (lb/lb seacoal)	Ebc (ton/yr)	Eac (ton/yr)		
	2000	acrolein	0.00000	0.00000	0.00000		
		benzene	0.00061	0.00061	0.00061		
		formaldehyde	0.00000	0.00000	0.00000		
		xylenes	0.00004	0.00004	0.00004		
		naphthalene	0.00002	0.00002	0.00002		
		toluene	0.00006	0.00006	0.00006		
		hydrogen cyanide	0.00012	0.00012	0.00012		
		aromatic amines	0.00002	0.00002	0.00002		
		C2 to C5 aldehydes	0.00006	0.00006	0.00006		
		Total HAPs		0.03379	0.00620		

Golden Casting Corporation
1616 Tenth Street, Columbus, IN 47201

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Process:	Rate (tons iron/yr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Type of control	Control Efficiency (%)
Castings Cleaning	4000	chromium	0.00646	0.01292	0.00013	baghouse	99.0%
and Finishing		cobalt	0.00051	0.00102	0.00001	baghouse	99.0%
		nickel	0.01139	0.02278	0.00023	baghouse	99.0%
		arsenic	0.00221	0.00442	0.00004	baghouse	99.0%
		cadmium	0.00102	0.00204	0.00002	baghouse	99.0%
SCC# 3-04-003-40		selenium	0.00017	0.00034	0.00000	baghouse	99.0%
AP-42 Ch. 12.10		Lead	0.00450	0.00900	0.00009	baghouse	99.0%
		Total HAPs		0.05252	0.00053		

	Total Potential Emissions (tons/year)	Total HAPs after Controls (tons/year)
chromium	0.033	0.005
cobalt	0.003	0.0004
nickel	0.043	0.008
arsenic	0.010	0.002
cadmium	0.003	0.001
selenium	0.001	0.000
Lead	0.134	0.045
phenol	0.023	0.003
benzene	0.126	0.019
formaldehyde	0.003	0.000
xylene	0.043	0.007
toluene	0.051	0.008
acrolein	0.000	0.000
hydrogen cyanide	0.00012	0.00012
aromatic amines	0.00002	0.00002
C2 to C5 aldehydes	0.00006	0.00006
Total HAPs	**0.473**	**0.099**

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-effiency/100) x Ebc
1 lb = 2000 tons